

Location of Loss/Near Loss

RienCrack P&G/May Acid Storage & Dist Fac.	RienCrack FCC Slurdrum,
RienCrack FCC SGRU,	RienCrack FCC SGRU,
RienCrack FCC NGRU	RienCrack FCC FCOISRU CWT,
RienCrack FCC Causal Storage / Distribution,	RienCrack FCC Refrds.,
RienCrack Crack Area Crnt Center,	
RienCrack Vessels Marine Way,	
RienB&S T68 SP Hlt Tank Field,	
RienB&S T68 Polv Yard Tank Field,	
RienB&S T68 Paroille Hill,	
RienB&S T68 PGAE Tank & System,	
RienB&S Pump Stations #24 Pump Station,	
RienB&S Pump Stations #21A Pump Station,	
RienB&S Pump Stations #17 Pump Station,	
RienB&S Long Wharf Berth 9,	
RienB&S Long Wharf Berth 3,	
RienB&S Long Wharf Berth 11,	
RienB&S BAS Gen BBS Crt House,	
RienKern Building,	
RienJ&E Utilities Substations,	
RienJ&E Utilities Reverse Osmosis Plant,	
RienJ&E Utilities Other (Utilities),	
RienJ&E Utilities Cogem,	
RienJ&E Haz Waste Section Wash Down Area,	
RienJ&E Haz Waste Section Haz Waste Acim Otcs	
RienJ&E Enviro S-127,	
RienJ&E Enviro Pump Stations,	
RienJ&E Enviro Porids,	
RienJ&E Enviro Landfills,	
RienJ&E Enviro Deep Water Outfall,	
RienJ&E Enviro Bioreactor,	
RienTtechnical Center 3rd floor,	
RienTtechnical Center California,	
RienRefinery Gen,	
RienQuaculty Crn (QCD) Other (QCDD),	
RienQuaculty Crn (QCD) Lab building,	
RienGlenn Procurement Offices,	
RienPlant Protection Filmhouse,	
RienPlant Facilities Southward Marin Facility,	
RienPlant Facilities GMS Facility,	
RienMarin Facilities Central Tool Room,	
RienMarin Facilities #3 District Factory,	
RienHydroprocessing S Iso SNR Unitl,	
RienHydroprocessing S Iso Over S Iso,	
RienHydroprocessing S Iso Hydrogen A Train,	
RienHydroprocess S Iso 10 Plant Sour H2OPrefln,	
RienHydroprocess S Iso 10 PlantsGasFeed,	
RienHydroprocessing RLOP Other (RLOP),	
RienHydroprocessing RLOP LND,	
RienHydroprocessing RLOP Finer ,	
RienHydroprocessing RLOP Heavy Nitro TNG 7,	
RienHydroprocessing N Isomxt ISO 7,	
RienHydroprocessing General Admin Ofc(Crack),	
RienD&R D&R West Utility Plant,	
RienD&R D&R West LSFO H2 Booster,	
RienD&R D&R West #5 Reniformer,	
RienD&R D&R West #4 Reniformer,	
RienD&R D&R Genl D&R Crtl House,	

[illegible]

155	Richmond CA - Refinery	10/7/2010 AM	Closed	Loss	Vacuum truck spilled ~2 gallons of MEGA onto the asphalt parking lot next to the scalehouse	Vacuum truck spilled ~2 gallons of MEGA onto the asphalt parking lot next to the scalehouse	Environmental	(1) 1. Why did product leak from truck? - Gasket was compromised at 4" reducer. 2. Why did gasket fail? - The gasket was not known to be in bad condition. 3. Why was it not known that the gasket was in bad condition? No visual inspection of the gasket done? 4. Why was no visual inspection of the gasket done? Because there was no formal process to do a visual inspection of the gaskets.
174	Richmond CA - Refinery	10/7/2010 PM	Closed	Loss	E-1413C lost bearing causing loss of cooling and cut in HMC feed train.	E-1413C lost a bearing causing the blades to hit the shrouds. HMC had to cut rates to handle the loss of cooling.	Equipment/Property Damage	(1) SOS: Design & Engineering-- Feed Ratio Cut in Plant Normally Run with Hi-Temp Alarm with Four Fans Running Increased Throughput from the 2007 Tube Project 18.5 to 24. (2) SOS: Maintenance & Inspection--Fan Blades were Hitting the Wheel. Fan Shell was Worn. Normal Wear and Tear. (3) SOS: Maintenance & Inspection--Manually Shut Down for High Vibrations. Automatic Shut Down Switch Didn't Work. (4) SOS: Maintenance & Inspection--Process running above alarm settings. Possible fouling of the tubes. (5) SOS: Warning Devices--Alarms set for product quality not set for safety or mechanical limits. The higher the temperature the higher the amount of hydrocarbon that is carried over to the overhead of the separator, reducing catalyst life.
260	Richmond CA - Refinery	10/9/2010 5:00:00 AM	Closed	Near Loss	P-26 set in error to T-3180 instead of T-3073	Started blending T-3134, T-3073 was in the blind and split between P-35 and P-26. RBO was notified that P-26 was set in error to T-3180 instead of T-3073. Operator immediately corrected valve lineup and the blind corrected itself to spec. No product contamination and the Cold was heated on the blend tank when completed.	NL-Quality - Product Quality (tn)	
281	Richmond CA - Refinery	10/11/2010 7:20:00 AM	Closed	Loss	Spider Bile	While cutting on work gloves, EE fell some lighting and burning at which time he removed them and reported the incident.	Injury/Illness	(1) Work Gloves
291	Richmond CA - Refinery	10/11/2010 7:20:00 AM	Closed	Loss	Spider Bile	While pulling on work gloves, EE fell some lighting and burning at which time he removed them and reported the incident.	NL-Injury/Illness - Employee Injury	(1) Work Gloves
307	Richmond CA - Refinery	10/10/2010 5:00:00 PM	Closed	Loss	Purged summer grade T-3133 down the pipe line to the boiler for this grade. The economic penalty is \$100 per barrel of T-3133.	On Sunday around shift change, pipeline batch CHVA-A3-739R for 30 mb started pumping. It pumped from 5:40 pm on 10/10 until 5:51 am on 10/11. It went to the Richmond inner harbor terminal to be loaded on a barge to go to our Europe terminal. The tank pumped was summer grade CH493 RUL from T-3133, when the boiler called for winter grade from T-1007 which had been boiler RVF.	Business Process	(1) Inadequate notification and communication between the plant and the terminal, new personnel working Refine Board operator jobs
329	Richmond CA - Refinery	10/7/2010 5:20:00 PM	Closed	Near Loss	Administrative deviation- Master Title V notification for unpermitted S/D	Master Title V notification for unpermitted shutdown of RIOP LNF plant. Needed to be submitted by the end of the next business day.	NL-Regulatory Compliance - Non Compliance	(1) LNF S/D was communicated under planned activity in RSL. However, RSLs were unaware that EFC depended on this to making required notifications. (2) EFC did not review shutdown pace in index, due to distractions
334	Richmond CA - Refinery	10/12/2010 5:20:00 PM	Closed	Near Loss	#3 Boiler breaker tripped open and shutdown the turning boiler	Due to refinery steam demand operations were trying to start up #5 boiler. Operations had difficulty closing the breaker on the fan to #5 boiler as maintenance was called in to troubleshoot and repair. While operating the breaker on #5 boiler fan, the breaker on #3 boiler fan tripped open and shut down the boiler.	NL-Business Process - Business Interruption	(1) SOS: Design & Engineering Insulation not re-installed in a timely fashion. Insulation installation in, who backing. (2) SOS: Design & Engineering Boiler put back in service. Management decides which boilers will be in service
338	Richmond CA - Refinery	10/12/2010 11:35:00 PM	Closed	Loss	Very small wooden scaffolding fire - no plant damage caused	Operator smelled smoke and immediately investigated discovering a small incipient stage fire. Wooden scaffolding that was in place for some maintenance work on #5 boiler had been in contact with an unsecured 800# steam black valve. The boiler was started earlier in the evening and the valve got extremely hot, eventually gutting the wood.	Fire/Explosion	
465	Richmond CA - Refinery	10/15/2010 1:00:00 PM	Closed	Near Loss	Catalyst blowdown line use caused smoldering of staging keyboard	Shaping put up in preparation of FCC major had a wooden board touching the catalyst blowdown line. When the shaping was installed that line was cool to the touch. During preparations to shutdown the FCC catalyst was dumped from the reactor. Dropped this line at 1200 deg F. This caused the toe board to begin to smolder. The Field Operator wet the staging to stop smoldering	NL-Fire/Explosion	
469	Richmond CA - Refinery	10/14/2010 12:00:00 AM	Closed	Near Loss	K-1070 shutdown and would not restart. Maint would not restart.	K-1070 was shutdown for Maint and would not restart. Maint worked through the night and could not find the problem.	NL-Operational Procedures - Process Run Out/Shutdown	(1) A Safety Test position Contact in the K-1070 switchgear prevented it from being started back up after a K-1070 shutdown. (2) Safety Test position Contact in the K-1070 prevented it from being started back up after a K-1070 shutdown. The breaker contact from closing supplying power to K-1070
473	Richmond CA - Refinery	10/15/2010 12:00:00 PM	Closed	Near Loss	Minor flare activity due to steam up activity. Cracking seen up activity. Cracking area major turn around.	Minor flow to FCC Flare occurred due to K-1070 flare gas recovery compressor being down for minor maintenance and various clean up activities associated with the Cracking area complex shutdown. This NLI will serve as a placeholder for all minor flaring activity due to CAEDU cleaning up in the future. Business unit will track flare activity and report at end of turnaround. Any major flare unit will impact the community or requires sampling will result in additional NLI and will be investigated separately.	NL-Lessons Learned	

491	Richmond, CA - Refinery	10/16/2010 10:15:00 PM	Closed	Near Loss	K-840 loss of pumping capacity causing all products to be routed off	At 22:15 on 10/16/2010, K-840 amps dropped off from 65 amps to 85 amps. At the same time, PC-820 increased from 50 psig to 60 psig. It appears that K-840 lost some loading capacity.	NI - Equipment/Property Damage - Equipment	(1) SOS: Design & Engineering: Iron sulfide scale is normal for upstream equipment/process. Fast new filters to help mitigate scale build up. (2) SOS: Maintenance & Inspection: K-840A was isolated/unavailable. To troubleshoot electrical problems (tripping). (3) SOS: Maintenance & Inspection: Scrub tube oil in cylinder is normal. Cause of excess oil cannot be determined at this time. Troubleshooting is needed. (4) SOS: Warning/Devices: Sludge could be result of chemical reaction of iron sulfide and idle oil when exposed to O2 when compressor is opened up to atmosphere for maintenance. (5) Sidebar Issues: - Design & Engineering: The loss of compression capacity due to pyrolytic sludge issues does not normally occur on both compressors at the same time. The cycle is normally between 18 to 24 months of good performance per compressor. With the last two to three months trending toward enough loss of compression (and high temperature alarms) to necessitate switching the compressor, and/or eventual routing of product to off test.
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503	Richmond, CA - Refinery	10/17/2010 10:30:00 PM	Closed	Loss	FCC Operators Sprayed and burned with hot oil	FCC Shutdown: During plant cleanup operations, while unloading strainer box under V-1023 coke stream, hot oil sprayed out of the box onto two area operators, causing burns to both. One was transported to the hospital via ambulance. The other was treated at the clinic and released to work.	Injury/Illness	(1) The cleanup for the Turnaround caused an unexpected and unanticipated volume of catalyst to plug the strainer baskets. (2) This is the first Turnaround where the strainer baskets were being used for cleaning the C-90 bottoms system strikers. (3) The current written Job Aid did not address the unexpected and unanticipated volume of catalyst to the strainer basket. (4) Operations personnel indicated that during the last few months of the FCC run they noticed more plugging in the strainer baskets, due to an increased amount of catalyst present. There were several events where steam and hot vapors came out of the strainer baskets during routine cleaning. These events were not reported until after this incident. (5) Although expected by Refinery practices, operations personnel did not document near loss reports of similar incidents in the Richmond Refinery's incident Reporting database
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528	Richmond, CA - Refinery	10/17/2010 3:15:00 PM	Closed	Loss	TRIPPED GOING UP STAIRS	Contract EE tripped while going up the stairs on the north side of the regen. EE injured right elbow/ finger while stopping their fall. EMT's were called and ice was applied. EE returned to work.	Injury/Illness	(1) Not making use of the stair handrails

528	CA - Refinery	3:15:00 PM	Closed	Loss	TRIPPED GOING UP STAIRS	Injured right pinky finger while slopping their rail. EMT's were called and ice was applied. EE returned to work.	NL-Injury/Illness - Contractor Injury	(1) Not making use of the stair handrails
543	Richmond CA - Refinery	10/18/2010 6:30:00 AM	Closed	Near Loss	Hose Modification Violation of RI-413 Discovers	A steam hose was found in front of CTR Monday morning 10/18/10 with a garden hose fitting attached to one end violating RI-413 sections 3.0 Specific Use of hoses, 4.2 General Instructions, and Appendix 1-A. Investigation is below.	NL-Equipment/Property Damage - Equipment Damage	
560	Richmond CA - Refinery	10/18/2010 8:00:00 PM	Closed	Near Loss	Particle in right eye	Walking into contractor office near gate 51. EE felt something in right eye. EMT were called and flushed EE eye. After flushing EE was taking to clinic for further treatment. An eye exam was found and EE was released back to work.	NL-Injury/Illness - Contractor Injury	(1) Eye wash
570	Richmond CA - Refinery	10/19/2010 2:45:00 AM	Closed	Near Loss	Forlift caught Electrical Pull Box Cover No. FB10	Forlift driver driving over uneven surface caused the vehicle to bounce and the forks to catch the Pulbox cover plate and caused it to move slightly.	NL-Equipment/Property Damage - Equipment Damage	(1) 1. Why did product leak to the ground? 2. Why was filling not sealing properly? Because the camlock seal was worn. 3. Why did we continue to use the camlock seal if they were worn? Because the driver thought they were ok for use. 4. Why did the driver think they were ok for use? Because some resistance was felt on the camlock seal and no there were no leaks on prior work. The current acceptable operating practice is, if there is no leak, and resistance is felt on the camlock seal, this connection is considered adequate. Review of the camlock's filling condition revealed that the wear of these camlock seal faces or certain materials under pressure (as was in this situation) more readily.
611	Richmond CA - Refinery	10/19/2010 10:30:00 AM	Closed	Loss	Cutter failed to ground at Main Street Cutter rack	Small leak occurred at 6" flange, noticed immediately, but when truck was put under vacuum it did not respond and full vacuum. The road valve had been closed by the vacuum truck driver's step-up Supervisor. The Supervisor's intent was to train the driver on the need to close the road valve manually on this particular truck. This aspect was forgotten about minutes later because had the road valve been re-opened the truck would have pulled vacuum when the leak was first spotted. Upon arrival to scene by regular vacuum Supervisor the closed valve was noticed, valve was opened, and leak was stopped. Approximately 4 gallons of water leaked to concrete surface before leak was stopped. Leak was immediately contained, absorbed, and cleaned up at that time.	Environmental	(1) Inadequate procedure - financial data does not apply a stock balance reconciliation or data check - see journal notes for more detail. (2) Incorrect price set selected in SAP/relle - see journal notes for more detail
627	Richmond CA - Refinery	10/12/2010 12:00:00 AM	Closed	Near Loss	Incorrect Net Cash Margin calculation	Incorrect Net Cash Margin calculation was performed and reported in our External rolling benchmarking system (Solvairy)	NL-Quality - Paperwork - Incorrect/Not Sent	
671	Richmond CA - Refinery	10/17/2010 12:00:00 AM	Closed	Near Loss	PSM Database Denial of Service	PSM databases not allowing access for users working night shifts during turnover.	NL-Business Process	(1) Symptom: Users could not log on to the MOC database. Why did it refuse to allow log on? Because the system had reached its limit. Why had the system reached its limit? Application load was high because the FCC Major TIA was in progress. The application was bogged down and could not process additional users because it was not compiled at this time making it less efficient.
680	Richmond CA - Refinery	10/20/2010 12:00:00 AM	Closed	Near Loss	20 plant over-pressured K1500	20 plant was being introduced into K1500 feed when it overpressured the first stage P.C. PC opened to flare, steam was added to flare. 5-10 minutes later K1500 was once again overpressured by 20 plant. Pressure backed out NISO and RI-OP atmospheric drums. Pressure vented to flare and steam was added for better combustion.	NL-Environmental - Release	
688	Richmond CA - Refinery	10/20/2010 1:45:00 PM	Closed	Loss	Drops of cable dressing spilled to water	While performing PM on Benth #3 DCMA 2 cables the mechanic moved the manlift in a way that the bucket shifted and spill over the side less than a table spoon	Environmental	(1) Mechanics didn't have a procedure that would outline the precautions need to prevent the incident.
696	Richmond CA - Refinery	10/20/2010 3:30:00 AM	Closed	Loss	Crane Load Contacted Light Fixture	A contractor crane operator was receiving relayed hand signals from two frontworkers while attempting to set a lift on 2A Separator. The load contacted a light fixture causing it to be damaged. Operations safely responded and took a report.	Equipment/Property Damage	(1) SCOS-Design & Engineering-Light Fixture is on the Middle Edge of the Area where the Lid is to be Lifted on and Off. (2) SCOS-Design & Engineering-Light Fixture is on the Middle Edge of the Area where the Lid is to be Lifted on and Off. (3) SCOS-Design & Engineering-Limited Number of Rods in the Refinery
717	Richmond CA - Refinery	10/21/2010 5:00:00 AM	Closed	Loss	Particle in left eye	Wytic Contract EE was removing gloves at end of shift and rubbed left eye and felt the particle. Chevron EMT's were called to help flush the eye out. EE was sent to clinic as precaution, the particle turned out to be a eye lash.	Injury/Illness	(1) Hand rubbing eye
770	Richmond CA - Refinery	10/21/2010 10:00:00 AM	Closed	Loss	-5 gallon spill of low pH water during liquid transfer to poly tank	Low pH water accumulated from the T-1821 water wash tank cleaning activity was being transferred from vac trucks to a Poly tank. A Clean Harbors technician along with a time technician, on loan, were tasked with securing the hose to the ladder adjacent at the top runway of the Poly tank. The hose worked loose from the rope intended to secure it, and some of the low pH material spilled into the berm with some (~1 gal.) splashing onto the asphalt and set next to the berm. What went right: 1. The procedures were followed. 2. The workers were all out of the line of fire, so none of the spray contacted the workers. 3. The Vaculla Vac Truck driver was paying close attention and trimmed safety shut off the transfer when the hose came loose. 4. Haz Waste personnel were immediately notified of the incident. 5. Clean Harbors immediately dispatched personnel to clean up the spill.	NL-Environmental - Spill	(1) Inadequate or no training is given to the Technician to perform the job.

https://impacterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_Ra5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

936	Richmond, CA - Refinery	10/24/2010	AM	Closed	1 Loss	Particle in the eye	tel something in her eye. She reported her situation then started flushing her eye. EMT looked at it, then was transported to the Refinery Clinic.	Injury/Illness	(1) Leak in the sealing surface of the goggles due to prescription eye glasses
972	Richmond, CA - Refinery	10/24/2010	AM	Closed	1 Loss	CFD called to investigate smoking electrical panel for failure #6 in the machine shop	At approximately 3:30 am on 10/24/2010 the CFD was called to investigate smoke coming from an electrical panel inside the machine shop at latina #6. Blaster #A12 (Circuit #A51/33) Latina#9 on 440v cabinet.	Fire/Explosion	(1) Whomose above electrical enclosures were left open, (2) Indoor Electrical Enclosures are not waterproof, (3) Indoor Electrical Enclosures are not waterproof, (4) Indoor Electrical
996	Richmond, CA - Refinery	10/26/2010	AM	Closed	1 Loss	Pain in the stomach	Blaster #EE stated he had been coughing for several days and started to hurt when his coughed. He stated he had a fluid in the spine he lifted a board (50-60lbs) and fell pain. Called CFD and took to the clinic where they were evaluated.	NI-Injury/Illness - Contorted Injury	
1052	Richmond, CA - Refinery	10/26/2010	AM	Closed	1 Loss	Sanitary sewer fire leak	The main sanitary sewer fiberglass line located along Channel S1 above the 100" Charnel developed a leak. The leak was caused by an acid line resting on allowing the acid line to rest on the sanitary line.	Equipment/Property Damage	(1) New acid line installed too close to the existing fiberglass sanitary sewer line
1053	Richmond, CA - Refinery	10/26/2010	AM	Closed	1 Loss	Sanitary sewer fire leak	The main sanitary sewer fiberglass line located along Channel S1 above the 100" Charnel developed a leak. The leak was caused by an acid line resting on allowing the acid line to rest on the sanitary line.	Environmental	(1) New acid line installed too close to the existing fiberglass sanitary sewer line
1053	Richmond, CA - Refinery	10/26/2010	AM	Closed	1 Loss	H2S personal monitors went into alarm	Two Times employees were replacing a gasket on a 26 inch dia off boiler on C-1400 and when employees separated the flange their H2S personal monitors went into alarm. workers did nt notice any smell but their monitors read 11ppm and the other 32ppm workers stopped work to advise supervisor.	NI-Injury/Illness - Contractor Injury	
1092	Richmond, CA - Refinery	10/26/2010	PM	Closed	1 Loss	Roller flange blind prior to completion of LOTO	36" lined blind installed at V-330 mild drum prior to LOTO completion.	NI-Operational Process/Incidents - Safety Systems	(1) Head operator deviated from safe work practices.
1008	Richmond, CA - Refinery	10/27/2010	AM	Closed	1 Loss	Opened flange with live steam - no one hurt	Koch - Opened flange with live steam. Turned out the tag was on the wrong side. It was opened away from mechanics and no one was hurt/Incidant Number 1038 Business Unit FCC Location V-301/309 Deserator area Facility Name Richmond Refinery Incident date 10/27/10 Type of Process: 150# steam type of Equipment: Steam supply piping Train Numbers: Ron Moore Bobby steam during during activities for V-301/309 Deserator. Contract supervisor was not on site. The area operator, Operator pointed out hanging blind tags at V-302A, B1404 and B1405. The area operator noted that the location of the blind tags were already removed and the replacement tag already be added. Contract supervisor instructed two of his PRBIM to install blinds at identified locations. PRBIM not boiled the flange on live side of steam first then began to loosen remaining bolts when water followed by steam shot out of flange. Both PRBIM quickly moved away from the spread flange to avoid getting burned. (Year miss with no injuries) Investigation details: " Area operator claimed to have shown the supervisor the tag locations but never specifically pointed to the exact flanges that were to be blinded. " Supervisor claimed the operator showed him the tag locations to be blinded. " Blind tag in question was hung on the live side of the Isolation valve and the "T" section of the tag had been removed prior to this and possibly several days earlier by others. " Supervisor had his PRBIM install blinds but did not request verification that the piping was depressurized. " PRBIM claimed they felt the live temperature and mentioned to their supervisor that it was still hot. No follow up was conducted and the operator was present during initial flange work. However the actual work that was performed immediately present and was not requested by contractor to be present. " Control loop piping no	NI-Injury/Illness - Contractor Injury	
1099	Richmond, CA - Refinery	10/26/2010	PM	Closed	1 Loss	Operator may have injured back on 10/26/2010 carrying non-return valve on #7 boiler	While closing #7 Boiler Non-Return valve after shutting boiler down, operator called from home, talked to STL about their back hurting. Possibly from closing the non-return valve earlier. STL instructed operator to check in at the clinic and not to have the turnover unit cleared. Operator went to clinic @ 5:30 am. Have no further details as operator still being examined.	NI-Injury/Illness - Employee Injury	
1147	Richmond, CA - Refinery	10/26/2010	PM	Closed	1 Loss	T3132 Damaged manway	While removing gasket material on a manway flange surface on T-3132. The surface was gouged and in need of repair before installing a new gasket and bolting up the manway.	Equipment/Property Damage	(1) SCS Maintenance & Inspections: Gasket surface was not cleaned when leak was opened/On for 2 weeks). They chose not to do it until the end. (2) SCS: Training & Procedures: Maintenance employee used pneumatic drill to clean the gasket surface. Maintenance is not trained on tool used for this leak.
1154	Richmond, CA - Refinery	10/27/2010	AM	Closed	1 Loss	Particle in Eye MABT	While cleaning under the Expander on the MABT, EE felt something come in contact with his left eye under his goggles.	Injury/Illness	(1) Unknown airborne particle
1172	Richmond, CA - Refinery	10/26/2010	AM	Closed	1 Loss	Ship and fish	Reduced contractor employee was assisting another employee grill blasting the manway of V-302. Both employees were tied off. Contractor employee slipped and fell hitting his back and shoulder off the grill blasting tool that did not get captured by the vacuum during the grill blasting.	NI-Injury/Illness - Contractor Injury	

1199	Richmond, CA - Refinery	10/28/2010	3:30:00 AM	Closed	Near Loss	Finger pinched	Millicor EE pinned pinky finger on chair. Paint Protection was called and washed and bandaged. EE returned to work	NL-Injury/Illness - Contractor Injury	
1201	Richmond, CA - Refinery	10/28/2010	1:30:00 AM	Closed	Near Loss	Missed an access point when pulling up Scott Air	Upon completion of a scall air job it was discovered that one access had been missed	NL-Injury/Illness - Contractor Injury	
1232	Richmond, CA - Refinery	10/28/2010	12:00:00 AM	Closed	Near Loss	Late reporting of Inoperative Compliance monitor - V-475 H2S analyzer	Late reporting of inoperative compliance monitor. V-475 H2S analyzer failed calibration on 10/24/10, and was not discovered and reported until 10/28/10	NL-Regulatory Compliance - Non	(1) Checking the analyzer calibrations was not part of the daily review by the HES group
1245	Richmond, CA - Refinery	10/28/2010	11:00:00 AM	Closed	Loss	Twisted Wrist	While EE was moving a section of the skirting for V-70 Reactor when he missed this belt work, EE and a co-worker were moving the piece that had just been removed and the co-worker lowered his hand before EE causing his wrist to twist backwards.	Injury/Illness	(1) Co-worker dropped the end of the skirting being removed while EE still had a grip on his end (1) SCS/Maintenance & Inspection: Tubes Needed to be Replaced. Tubes fouled. Reduced flow through the tubes. Debris plugged the tubes. No Backwash. No PM in place. SRGM recommendation was not implemented (either didn't get to Operations or it was missed/overlooked). (2) SCS: Training & Procedures: Debris left in exchanger when it was replaced.
1291	Richmond, CA - Refinery	10/28/2010	12:00:00 AM	Closed	Near Loss	GH-T plant Exchanger fouling	E-1676 and E-1680 during shutdown inspection were found to be fouled and indications of plugging in the cooling waste side of exchanger	NL-Lessons Learned	
1297	Richmond, CA - Refinery	10/28/2010	4:00:00 AM	Closed	Loss	Contractor Particle in eye.	Contract welder fell into the right eye at the end of his shift, while cleaning up from weld job in his weld bay. He reported the inflation to his foreman. They suspected it was a slight flash-burn and employee decided to go home.	Injury/Illness	(1) Lack of proper eye protection
1297	Richmond, CA - Refinery	10/28/2010	4:00:00 AM	Closed	Loss	Contractor Particle in eye.	Contract welder fell into the right eye at the end of his shift, while cleaning up from weld job in his weld bay. He reported the inflation to his foreman. They suspected it was a slight flash-burn and employee decided to go home.	NL-Injury/Illness - Contractor Injury	(1) Lack of proper eye protection
1331	Richmond, CA - Refinery	10/28/2010	8:45:00 AM	Closed	Loss	Tripp and Fall	Contractor Employee was walking along designated walking path to get on the bus to start her shift. Employee tripped and fell on the big stairs that are holding up the chain link fence and received a strain on each hand and a scrape on each knee.	Injury/Illness	(1) Temporary Ferrous
1351	Richmond, CA - Refinery	10/28/2010	8:00:00 PM	Closed	Loss	Employee on company travel sought out medical treatment.	Employee on company travel had medical issue. Information for document purposes only.	Injury/Illness	(1) Sharp Object exposed (1) 1. 48 gallons of lubricant were spilled to concrete. Why? Bottom of drum was punctured and operator used pulling and yanking to get out of drum while operator was pulling and yanking. Why? Drum was tighter than the pallet. Why? This blade being used? Forklift was previously assigned to Maintenance then it was transferred to WHS. The operators noticed the forks were longer but the risk of using them was not identified as an issue. Why? Because enforcement of risk identification and reporting of abnormal conditions needs to be improved. 2. Why was the punctured drum not detected earlier? Because frequent inspections of the storage areas are not being required to contain leaks from damaged packages. Why are inspections not being required? Because the risk of having spills from damaged containers had not been identified and addressed. (2) 3. 48 gallons of lubricants were spilled to concrete. Why? Bottom of drum was punctured. Why? It was stepped with forklift fork while operator was putting drums away. Why didn't the operator avoid stepping the drum? Operator did not take the requisite care when putting drums away. Why? Operator did not assess the risk of getting too close to the drums when stacking and did not address the risk of bumping a drum when punching it. (3) 4. 48 gallons of lubricant were spilled to concrete. Why? Bottom of drum was punctured. Why? It was stepped with forklift fork while operator was putting drums away. Why? Operator bumped the drum on pallet in front of the pallet of drums that he was placing. Why? Operator was taught this method of pulling away drums and the risk of damaging the drums when bumping a second tier of drums was not properly identified. (4) 5. Storage area was not inspected prior to being used, to address any unusual conditions (unworn floors, stacking space reduced, etc.). Why? Because supervisor was not available to inspect when storage had to be transferred to this location. Why was supervisor not available
1359	Richmond, CA - Refinery	10/21/2010	12:00:00 AM	Closed	Loss	Leaking drum at location OUT608	10/20/2010 - OCS generated a replenishment assignment for Warehouse location J-30 to move to location OUT608. The move consisted of 4 pallets of transurex F. This location is not commonly used, and was assigned when the usual storage space was unavailable. The supervisor was not in the facility when the OCS storage space was assigned. This retail supervisor was also not aware that a new storage space that was not routinely used was going to be used. There were two Warehouse Contractors that performed these pallet moves as a team. One of the contractors was not aware of the location of the drums and the other contractor took the pallets of drums to location OUT608 (outside). These moves occurred from 15:00 to 15:52pm. A third Contractor was picking drums from location OUT608 (the locations down from OUT608) at 16:18 hours and saw no signs of a spill. The forklift being used had unusually long forks that could stick out of the other side of a drum pallet. It is likely that the drum could have been punctured when the operator pushed the pallet while stacking the drums. The long forks were used for maintenance tasks and were not evaluated to determine if appropriate for product pallet movements before being released to the warehouse. 10/21/2010 - WHS Team was in their morning RTT meeting from 8am - 8:20am. At 6:15am Blending Operator was driving by the warehouse and noticed a large pool of product on the asphalt and he attempted to call the HES Specialist on the radio. The HES Specialist was giving training at that time and had their radio turned off and did not hear the call. At 6:15am Blending Operator went inside to inform the warehouse team of the spill. Warehouse team immediately began to contain and clean up spill.	NL-Environmental - Spill	(1) 1. 48 gallons of lubricant were spilled to concrete. Why?

1368	Richmond, CA - Refinery	10/21/2010 12:30:00 AM	Closed	Loss	Leaking drum at location CUI 1608	10/20/2010 - CCS generated a replenishment assignment for Warehouse location J-30 to move to location CUI 1608. This move consisted of 4 pallets of Transulix F. This location is not commonly used, and was assigned when the usual space was unavailable. The supervisor was not in the facility when the outside storage space was assigned. The relief supervisor was also not aware that a new storage space that was not routinely used was going to be used. • There were two Warehouse Contractors that performed these pallet moves as a team. One contractor moved the pallets of drums to dock 6a (inside) and the other contractor took the pallets of drums off the dock and moved them into the warehouse. • The drums were moved to a new location (CUI 1608) to 15,520m. • A third contractor was used to move the drums from CUI 1608 to locations down from CUI 1608 at 16:18 hours and saw no signs of a spill. The forklift being used had unusually long forks that could stick out of the other side of a drum pallet. It is likely that the drum could have been punctured when the operator pushed the pallet while stacking the drums. The long forks were used for maintenance tasks and were not evaluated to determine if appropriate for product pallet movements before being released to the warehouse. • 10/21/2010 - WHS Team was in their morning RIT meeting from 8am - 6:20am. • At 6:10am Blending Operator was driving by the warehouse and noticed a large pool of product on the asphalt and he attempted to call the HES Specialist on the radio. The HES Specialist was giving training at that time and had their radio turned off and did not hear the call. • At 6:15am Blending Operator went inside to inform the warehouse team of the spill. Warehouse team immediately began to contain and clean up spill.	Environmental	Bottom of drum was punctured and not detected. Why? It was stacked with forklift fork while operator was pulling drums away. Why? Forklift blade was longer than the pallet. Why was this blade being used? Forklift was previously assigned to Maintenance Area (MA) and was not inspected. Why? The operator was not identified as an issue. Why? Because enforcement of risk identification and reporting of abnormal conditions needs to be improved. 2. Why was the punctured drum not detected earlier? Because frequent inspections of the storage areas are not being required to contain leaks from damaged packages. Why are inspections not being required? Because the risk of having spills from damaged containers had not been identified and addressed. • (2) 3, 48 gallons of lubricants were spilled to concrete. Why? Bottom of drum was punctured. Why? It was stacked with forklift fork while operator was pulling drums away. Why didn't the operator avoid spilling the drums? Operator did not take the requisite care when pulling drums away. Why? Operator did not assess the risk of getting too close to the drums when stacking and (3) 4. Address the risk of bumping a drum and puncturing it. • Bottom of drum was punctured. Why? Spills to concrete. Why? Forklift fork while operator was pulling drums away. Why? Operator bumped the drum on pallet in front of the pallet of drums that he was placing. Why? Operator was taught the method of putting away drums and the risk of damaging the drums when bumping a second tier of drums was not properly identified. • (4) 5. Storage area was not inspected prior to being used, to address any unusual conditions (uneven floors, stacking space reduced, etc.). Why? Because supervisor was not available to inspect when storage had to be transferred to this location. Why was supervisor not available
1460	Richmond, CA - Refinery	10/29/2010 8:00:00 AM	Closed	Near Loss	Wharf bus radio's not functioning correctly, radio is not receiving all incoming calls. Due to the radio not working properly there is a risk of delaying key personnel going to and from the RLV.	Business Process Interruption	(1) There was interference from outside sources that was hindering the Wharf bus radio phone. In the morning 3 weeks ago we put some protections on the channel. Those protections were hindering phone operation especially as the environment with the shut down was quite busy. The portable radios are fine and the security group did nothing to cause the problem.	
1469	Richmond, CA - Refinery	10/20/2010 11:10:00 PM	Closed	Loss	Wiped face and eyes (all initiation)	Injury/Illness		
1507	Richmond, CA - Refinery	10/21/2010 6:00:00 AM	Closed	Near Loss	Oil slicken job leak in RLOP GRU	Spill		
1517	Richmond, CA - Refinery	10/21/2010 4:25:00 PM	Closed	Loss	Wedge popped off valve and struck face	Injury/Illness	(1) One wedge (per flange seal) being used vs two stacked wedges. (2) Both EEs perceived the Foreman to be a safe distance outside the line of fire at that moment	
1526	Richmond, CA - Refinery	10/21/2010 11:15:00 PM	Closed	Near Loss	House failure	Equipment/Property Damage - Equipment		
1528	Richmond, CA - Refinery	11/11/2010 2:30:00 AM	Closed	Near Loss	Personal H2S monitor sounded while worker was inside V-1441.	Operational Process/procedures - Safety Systems		

https://impact.ern.chelvron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

1546	Richmond, CA - Refinery AM	11/2/2010 5:30:00	Closed	Near Loss	Confidence database issue	(4 hours) is the main issue and the cause is getting help promptly to fix this issue whenever it may arise. As of time reported, the RUC-6 Trip Deck has not been checked to address this problem. Long term, if problem was to continue we could miss inspections and be out of compliance.	NL-Regulatory Compliance - Non Compliance	
1571	Richmond, CA - Refinery PM	11/2/2010 3:30:00	Closed	Loss	Particle in the eye	Koch EE was lying mesh down with wire at top of C-60. EE wiped eye when felt particle. EE flushed eye, plant protection was called and sent to clinic for further evaluation. EE scratched his eye. EE was wearing prescription safety glasses	Injury/Illness	(1) Rubbed Eye
1572	Richmond, CA - Refinery AM	10/14/2010 8:00:00	Closed	Near Loss	Carrier arrived to deliver product from Grand Prairie Texas and almost couldn't offload due to no pass allowed in Refinery	During BCP carrier showed up to deliver product from Grand Prairie Texas and was delayed getting into gate due to dog on board and guest.	NL-Transportation - Company	
1573	Richmond, CA - Refinery AM	10/28/2010 10:00:00	Closed	Near Loss	Truck arrived for pick up 10:00:00 and had to pass of alcohol in trailer	Trailer arrived to pick up feed. FTL went to load and observed to cases of alcohol in trailer. EE reached operator's window during. Supervisor brought the alcohol to the attention of the driver and asked him to remove from trailer so feed EE can load. Supervisor advised driver that alcohol was prohibited to come into Refinery. Sales Rep of account was notified as well to enforce Refinery Policy.	NL-Regulatory Compliance - Non Compliance	
1574	Richmond, CA - Refinery AM	11/1/2010 12:00:00	Closed	Loss	Operator twisted ankle on uneven pavement.		Injury/Illness	(1) Operation stepped on uneven surface causing ankle injury. On further evaluation determined operator had existing swelling that was contributing factor.
1585	Richmond, CA - Refinery PM	11/2/2010 7:00:00	Closed	Loss	EE's hand was swollen	Operator twisted ankle on uneven pavement	Injury/Illness	
1606	Richmond, CA - Refinery PM	11/1/2010 2:25:00	Closed	Near Loss	Base Oil B&S readings during a Mogas	Malix - When EE put his coversalls on he felt a slight itch on the back of his right hand and thought it was a mosquito bite. Later his hand started to swell and red so he and his safety rep came to the office.	NL-Environmental - Spill	(1) Did not double check amount requested verbally on the phone from RLP.
1628	Richmond, CA - Refinery PM	11/2/2010 6:00:00	Closed	Loss	Loss of Raman analyzer readings during a Mogas	Bandring Head Operator reported a high level alarm at approx 14:25 (near high level alarm into below) on Base Oil T-5101 while taking a charge from Base Oil for 5000 Bbls (Order #832917). Order called and was confirmed for 5000 Bbls from both sending (FLDP) and receiving ends(RLP). After high level alarm was set off, Head Operator immediately closed T-5101 inlet valve and verified no product had overfilled tank. Head operator then notified supervisor & operations manager and called Operations at B&S. B&S Operator reported he mispiped the order quantity as 5500 Bbls. Tank info. Tank level at time of alarm 34.67 feet and the volume is 659429 gallons. High level alarm went off like it is suppose to and no product was lost. High level set point is 34.8" High level is 35.1" Tank overall level is 39.10"	Operational Process/procedures	(1) M-distance above accepted threshold
1628	Richmond, CA - Refinery PM	11/2/2010 6:00:00	Closed	Loss	Loss of Raman analyzer readings during a Mogas	This evening at the start of shift the Raman analyzer PV's all went BCO.	Business Process	(1) M-distance above accepted threshold
1635	Richmond, CA - Refinery PM	10/28/2010 2:00:00	Closed	Near Loss	Operator sprayed with hydrocarbon at sample station.	While an operator was attempting to empty T1889 sample pump, the drain valve to sample box was opened and gas oil splashed out of the sample box spraying the coversalls and a few drops on his face. The EE was not injured.	NL-Injury/Illness - Employee injury	
1652	Richmond, CA - Refinery PM	11/2/2010 11:30:00	Closed	Loss	EE needed assistance of a ladder after elbow popped	Thorne EE was chipping refractory inside of the regenerator (V-70). While chipping EE felt a pop in his elbow and need assistance getting down the ladder approx. 20ft. Plant protection was called for assistance. EE had a previous injury to elbow. EE went to his own doctor for medical attention.	Injury/Illness	(1) Chipping gun
1652	Richmond, CA - Refinery PM	11/2/2010 11:30:00	Closed	Loss	EE needed assistance of a ladder after elbow popped	Thorne EE was chipping refractory inside of the regenerator (V-70). While chipping EE felt a pop in his elbow and need assistance getting down the ladder approx. 20ft. Plant protection was called for assistance. EE had a previous injury to elbow. EE went to his own doctor for medical attention.	NL-Injury/Illness - Contractor injury	(1) Chipping gun
1652	Richmond, CA - Refinery PM	11/2/2010 11:30:00	Closed	Loss	EE needed assistance of a ladder after elbow popped	Thorne EE was chipping refractory inside of the regenerator (V-70). While chipping EE felt a pop in his elbow and need assistance getting down the ladder approx. 20ft. Plant protection was called for assistance. EE had a previous injury to elbow. EE went to his own doctor for medical attention.	NL-Regulatory Compliance - Non Compliance - Air	(1) Turnover checklist/procedure for LDAR position did not exist or was incomplete
1698	Richmond, CA - Refinery PM	11/2/2010 1:45:00	Closed	Near Loss	Employee falling 10ft head and nauseous	Wellbeck: Contractor Employee fell 10ft head and nauseous. Employee went and sat down in shade to drink some water and began vomiting.	NL-Injury/Illness - Contractor injury	(1) De hydration
1700	Richmond, CA - Refinery AM	11/2/2010 5:20:00	Closed	Near Loss	Meat flame - due to over pressuring relief flapper	High flow to USC relief system when V4098 SRV lifted during modified regen procedure K3850 shut down due to nucleating suction pressure. Visible flame next plant shutdown. (Note: there were other relief flaps at the time K3850 making suction pressure control erratic (spit back/spraying) so PCO had procedure to allow flow to 5712S.	NL-Regulatory Compliance - Non Compliance - Air	(1) Valve at P-11 was leaking by to relief
1701	Richmond, CA - Refinery PM	11/2/2010 3:35:00	Closed	Near Loss	10 minute loss of signal flow meter indication to Control House	Electrical Contractor was doing conduit demo work at old TX 2031204 MCC. Contractor accidentally cut into conduit which had the two circuit going to Mass flow meter for the South Iso flare gas.	NL-Business Process Intervention	

1705	Richmond, CA - Refinery	11/2/2010 1:20:00	Closed	Loss	On Nov 3rd 2010 at approximately 13:20 while installing a 14 inch blind into the downstream side of a check valve to FGR, under a live relief permit, vapors were released.	Relief gas from live Relief job installing 14 inch blind downstream of check valve leading to Flare gas Recovery. - Tripped several H2S in plant sensors at 18 & 19 PPM and several personnel monitored in Hydro and FCC. Hydro report - On Nov 3rd 2010 at approximately 13:20 while installing a 14 inch blind into the downstream side of a check valve to FGR, under a live relief permit, vapors were released. H2S alarms were triggered at RLOP/18 Plant and GRU 19 Plant. 5 Operators surveying 18 plant reported that personnel monitors tripped. STL notified CFD and request for them to check H2S levels at Recovery and Channel ST. RLOP activated the plant evacuation siren. CFD detected - 7 ppm H2S at Channel ST and notified STL that FCC had also begun evacuation. Per FCC area field safety coordinator, Kyle Dieck. The following information is a summary of the events that occurred at FCC on November 3rd, 2010. The FCC flare was performing a live relief job under fresh air with approximately 12 persons. It has been assumed that the source of the H2S in this incident occurred during this job. The entire live relief job took 24 minutes. Wind was moving towards the FCC. At approximately 14:00, H2S alarms at RLOP 18 and 19 plant sounded, which was followed by alarms at 3H2S plant, and operators evacuated the plants to the muster points located at the Alky lunch tent, and at the FCC lunch tent (located in #1 parking lot). 31 personnel H2S alarms went off at various locations throughout the plant. A majority of the personnel whose alarms sounded were holding watches higher up on the structures in the FCC, and those whose alarms sounded while crossing the bridges towards the HydroCracking Offices heading towards the lunch tent at FCC. The following is a summary of the alarms:	Operational Process/Procedures	(1) WHAT: Personnel exposed to H2S (first aid) WHY1: Plants downwind of live relief job were not evacuated before job began WHY2: HSE and Live Relief permitting participants did not anticipate H2S vapors traveling the distance to affect RLOP & FCC.
1711	Richmond, CA - Refinery	11/2/2010 9:30:00	Closed	Loss	sick and nauseas	Injury/Illness	(1) Exhaust fumes	
1745	Richmond, CA - Refinery	11/4/2010 9:00:00	Closed	Loss	Smoldering trash can FCC operating area	NL-Fire/Explosion	(1) Materials inside trash can auto ignited. CFD did find Absorbent which was probably soaked with hydrocarbons, determined to be the most likely cause of ignition.	
1771	Richmond, CA - Refinery	11/4/2010 11:30:00	Closed	Loss	Overheated while inside V-70	Injury/Illness		
1788	Richmond, CA - Refinery	11/4/2010 4:16:00	Closed	Loss	Breakdown in the Bin Releasing Procedure and misdelivered different bin containing different material.	NL-Business Process		
1788	Richmond, CA - Refinery	11/4/2010 4:16:00	Closed	Loss	Breakdown in the Bin Releasing Procedure and misdelivered different bin containing different material.	NL-Quality - Product Mis-Delivery		
1799	Richmond, CA - Refinery	11/4/2010 4:30:00	Closed	Near Loss	particle in the eye	NL-Injury/Illness - Contractor Injury	(1) Eye lavty abrasion to cornea. (2)	
1801	Richmond, CA - Refinery	11/5/2010 8:29:00	Closed	Loss	EE hit elbow on staging	Injury/Illness	(1) Slipping not built correctly	
1829	Richmond, CA - Refinery	11/5/2010 6:15:00	Closed	Near Loss	Mitias EE hand resistance to get cut of a hole	NL-Injury/Illness - Contractor Injury	(1) Driver took unnecessary risk to extend reach with oil paddle by getting too close to water's edge where surface is sloped and slippery. 5 WHY: 1. Why did vacuum truck operator sustain an injury? He slipped on a sloped, slippery spot near water's edge of the discharge inlet. 2. Why did he slip? He lost his balance, and when he stepped to steady himself his step contacted a sloped, slippery surface resulting in fall. 3. Why did his foot come in contact with a sloped, slippery surface? He had gotten too close to the edge. 4. Why did he get too close to the edge? An established limit line boundary had not been in place. Why was a limit line not in place? Previous procedure did not include this aspect.	
1840	Richmond, CA - Refinery	11/6/2010 9:05:00	Closed	Loss	Vacuum truck operator slipped and fell causing knee abrasion	Injury/Illness		

1842	Richmond, CA - Refinery	11/6/2010 2:24:00 PM	Closed	Loss	Chemist EE struck by falling hammer			bed #5 in C-160, when a hammer, sitting on bed #4 was bumped and fell thru 3 manways and made contact with the Operator on the shoulder. The beds are about 18" apart and the estimated height the hammer fell was 8 to 10 ft.	Injury/Illness	(1) Falling hammer
1843	Richmond, CA - Refinery	11/6/2010 2:00:00 AM	Closed	Near Loss	T-1514 filled above SOH from Oregan Voyager discharge			On Saturday, November 6, 2010 at approximately 12:30 pm a Field Operator noticed the secondary seal and a portion of the primary seal was exposed above the top rim of T-1514 (FCC Heavy gasoline). The Field Operator immediately reported the incident and the tank roof was put back to a safe position (i.e., eliminating the exposure of the seal). T-1514 is normally a nonsteam tank for FCC Heavy gasoline with a 45 API, and received a Megas component input (API 67) from the wharf. Although there was no loss of the potential of a more serious incident, the exposure of the seals allowed for discharge a 6700 bbl spotgrade component from the ship's respective discharge bell. All items checked out of line. When the ship's respective pump used and receiving tank. The ship jets were on reel gauges. T-1514's jets were on the auto gauge. No opening or closing reel gauges were obtained on T-1514 still tank (not a running gauge). As day crew was discussing further possibilities, the field operator reported on radio that the roof on T-1514 was sticking up above its rim. The area operator immediately got a reel gauge and confirmed the 2ndry seal was one and a half ft above the shell rim.	NL - Operational Process/Procedures - Scale Operating Limit (SOL) Exceeded	(1) Failure to follow procedure to receive import cargo through the fill line, (2) Failure to document the change in tank service via the MOC process, (3) The tank does not yet have a secondry seal and trip level alarm, (4) Failure to recognize that tanks with trip level will always have discrepancy on the actual level vs the SRAO indication.
1844	Richmond, CA - Refinery	11/6/2010 2:30:00 PM	Closed	Loss	Particle in the Eye, V-70			Went V-70 Deck #5. EE went into the vessel to drink a job, and while climbing a ladder fell a drill blowing from ventilation equipment and hit something on the eye under his goggles.	Injury/Illness	(1) Ventilation blower
1845	Richmond, CA - Refinery	11/6/2010 10:00:00 PM	Closed	Near Loss	Escorting shifter inside V-70			Went W/ Marillac. A welder inside V-70 at the 6th deck while working noticed a shift or sag77 hanging from a scaffold bar smoking and burning. He stopped work and passed the burning clothing through the manway to the entry attendant who promptly extinguished it with a dry chem and water.	NL - Fire/Explosion	
1850	Richmond, CA - Refinery	11/6/2010 8:35:00 PM	Closed	Near Loss	Forklift tapped a staging			The forklift was moving a table from one weld bay to another. Had a spotter. The forks were about 5 feet off the ground while bringing the table into the weldbay. The forks hit the top of the weldbay and knocked a staging leg off its wood support.	NL - Equipment/Property Damage - Equipment	
1864	Richmond, CA - Refinery	11/7/2010 10:25:00 AM	Closed	Near Loss	High level LH1055 on V-1050A had problem with the electrifying liquid. North, South and Rip Flares for 8 min.			High level LH1055 on V-1050 shutdown K-1070. Pumps MP-1050 and MP-1050A had problem with the electrifying liquid. North, South and Rip Flares for 8 min.	NL - Operational Process/Procedures - Safety Systems	(1) K-1050DK-1070 suction K.O.'s could not remove level fast enough and caused K-1070 to trip off line due to the high level.
1866	Richmond, CA - Refinery	11/7/2010 11:40:00 AM	Closed	Loss	Contractor EE twisted ankle			Went EE working in the bottom of Regen slipped and twisted ankle.	Injury/Illness	(1) Uneven surface
1869	Richmond, CA - Refinery	11/7/2010 11:30:00 AM	Closed	Loss	#5 Castro fresh water line ruptured behind the refinery scale house.			The #5 Castro fresh water line ruptured, likely due to corrosion and the normal water pressure in the line. Considerable water flow flooded the area and eroded the pipeway beneath the line. The break occurred at approximately 11:30 am and was blocked in at approximately 2:15 pm. The amount of erosion and the size of the break are underlined at this time due to high muddy water levels in the area. More to come.	Equipment/Property Damage	(1) External corrosion on line
1872	Richmond, CA - Refinery	11/7/2010 4:30:00 PM	Closed	Near Loss	Skin irritation			CSB EE while performing Eddy current on E-192, liquid came in contact of right wrist and caused irritation.	NL - Injury/Illness - Contractor Injury	
1898	Richmond, CA - Refinery	11/8/2010 8:03:00 AM	Closed	Near Loss	Damage to TWC Gate			While Nickel Drilling Company approached the TWC Gate, they did not swipe their badge and instead followed the Power Suppmentent through the gate which resulted in the gate closing on the Nickel Drilling Company vehicle. Minimal damage was done to the truck however, the TWC gate was also damaged. The gate is still operational and no guards needed to men the gate.	NL - Equipment/Property Damage - General Liability	
1901	Richmond, CA - Refinery	11/8/2010 10:15:00 AM	Closed	Near Loss	PARTICLE IN THE EYE			WYATT EE WAS ON 7TH DECK OF THE REACTOR REMOVING FULL FACE RESPIRATOR WHEN PARTICLE WENT INTO THEIR EYE.	NL - Injury/Illness - Contractor Injury	
1905	Richmond, CA - Refinery	11/8/2010 10:18:00 AM	Closed	Near Loss	Loss of Instrument Air to 51FCO23A (TWC Bypass) to E-425			A test was run within Cracking. Isolating the instrument air system so that we could perform some tests. The only issues identified with the test were the SRU, VOB, and V-475 areas. At this point we looked closer at the location of the header and were able to resolve SRU's problem and then installed a portable air compressor to address VOB and V-475 air needs. During this test, there were no issues identified with 51FCO23A (TWC bypass to E-425) because this is an air-to-open valve and the header was not depressured during the test. It was when the system was isolated today that the header pressure bled off and the control valve then went closed causing TWC to no longer to get out with its product.	NL - Operational Process/Procedures - Plant Run Out/Slow Down	(1) Did not take into consideration that the control valve would fail closed when instrument air pressure was depressured.
1928	Richmond, CA - Refinery	11/8/2010 6:30:00 PM	Closed	Near Loss	Trailer hit scaffold while trying to strengthen up			Superheat unit backing up the heating trailer. EE was trying to strengthen up trailer and caught the trailer on scaffolding. The scaffolding was impacted and trailer had minor damage.	NL - Transportation - Contractor	

1842	Richmond, CA - Refinery	11/8/2010 4:40:00 AM	Closed	Loss	Dust from grit blast triggered asthma to flare up	Injury/Illness	(1) Asthma Dust
1970	Richmond, CA - Refinery	11/9/2010 9:30:00 AM	Closed	Loss	Slight abrasion to eye lid	Injury/Illness	(1) Reps
1977	Richmond, CA - Refinery	11/9/2010 12:00:00 AM	Closed	Loss	Tip the lifelizer / no visible flame	NI-Operational Procedure - Safe Operation Limit (SOL) Exceeded	
1986	Richmond, CA - Refinery	11/9/2010 3:30:00 PM	Closed	Near Loss	ALIVE RELIEF WAS PLANNED FOR TURNOUT TIME ON HIGH SHIFT AND NOT INFORMED. OPERATORS WERE ALLOWED TO PROCEED TO THE CONTROL ROOM THROUGH AN EVACUATED AREA WITHOUT KNOWLEDGE OF THE WORK. ALL INVOLVED PERSONNEL HAD NOT MADE IT TO THE CONTROL ROOM FOR TURNOUT.	NI-Lessons Learned	
2037	Richmond, CA - Refinery	11/16/2010 11:45:00 AM	Closed	Loss	Particle in the Eye, E-192A	Injury/Illness	(1) Airborne Particle
2040	Richmond, CA - Refinery	11/16/2010 11:15:00 AM	Closed	Loss	Pierced finger during demolition of old Firewater Pipe	Injury/Illness	
2043	Richmond, CA - Refinery	11/16/2010 10:00:00 AM	Closed	Loss	Operator inadvertently backed into an electrical panel and ripped weaker 2,538 @ #7 Power center.	NI-Operational Procedure - Plant Run Out/Slow Down	
2066	Richmond, CA - Refinery	11/11/2010 3:25:00 AM	Closed	Loss	Working a hose and wire jammed in top of right finger	Injury/Illness	(1) Piece of Wire
2066	Richmond, CA - Refinery	11/10/2010 4:40:00 PM	Closed	Loss	Low point blender was opened to check for contaminants	NI-Environmental - Release	(1) Low point blender was opened to check for contaminants
2122	Richmond, CA - Refinery	11/11/2010 4:10:00 PM	Closed	Loss	Particle in the eye	Injury/Illness	(1) Airborne Particle
2171	Richmond, CA - Refinery	11/12/2010 10:00:00 AM	Closed	Loss	Chevron EE tripped, skinned knee	Injury/Illness	(1) Employee fell in the plant when he tripped over a 1/2" pipe installed between tank and process drain. Why did the employee fall? Employee fell because he did not see the pipe installed at ground level. Why did the employee not see the pipe? There was two reasons the employee did not see the pipe, the employee did not have eyes on path and the pipe was not painted to improve visibility.

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2183	Richmond, CA - Refinery	11/12/2010 12:40:00	PM	Closed	Loss	Slag burn to hand	Wheat: EE was cutting on the skin at the Elit level when some slag fell down into the glove causing two minor burns to the back of his hand and the back of a finger.	Injury/Illness	(1) Slag
2185	Richmond, CA - Refinery	11/12/2010 10:00:00	AM	Closed	Near Loss	Sanitary Sewer Live Leak Off Channel Street Haz. Waste Offices	Fireglass Sanitary Sewer line cracked at the lie in point from Haz. Waste Offices off Channel St.	NL-Environmental - Operational Leak	
2189	Richmond, CA - Refinery	11/12/2010 10:00:00	PM	Closed	Near Loss	Personal H2S Monitor Activation & Loss of Confine during Melt out line procedure	Chemour: After drilling a pilot hole during old line procedure, low temperature (cold) product escaped from line. Mechanic on the job had part of his coverall (over garments) coated with liquid. H2S monitor activated. No peak reading was available. ... monitor was reset in the field.	NL-Injury/Illness - Employee Injury	
2186	Richmond, CA - Refinery	11/12/2010 4:45:00	PM	Closed	Loss	Vessel overfilled while loading with fresh carbon	A Calgon driver/technician overfilled one of the BGS carbon vessels while transferring a truck load of fresh carbon to it. This resulted in fresh carbon spilling to the surrounding ground and plugging the area's process drain	Environmental	
2189	Richmond, CA - Refinery	11/12/2010 3:45:00	PM	Closed	Loss	Vessel overfilled while loading with fresh carbon	A Calgon driver/technician overfilled one of the BGS carbon vessels while transferring a truck load of fresh carbon to it. This resulted in fresh carbon spilling to the surrounding ground and plugging the area's process drain	NL-Environmental - Spill	(1) Why - Too much excess water in the vessel. Why - Water drain not opened. Why - These vessels require this special procedure (opening of water drain) that was not known to him. Why - Calgon Management didn't inform him of and provide him with this procedure / requirement.
2206	Richmond, CA - Refinery	11/13/2010 3:45:00	PM	Closed	Near Loss	EE stuck in elevator	Welltech: Elevator Operator was stuck in the elevator below the second level. Tipped the locking device for the door at the second level, had EE pull ladder inside elevator in place and climb out the trap door on the roof and exit through the door.	NL-Business Process - Business Interruption	
2211	Richmond, CA - Refinery	11/13/2010 10:40:00	PM	Closed	Near Loss	Hole watch's position was not the best vantage point	Welltech: Hole watch's position was not the best vantage point for keeping 100% eye contact with the individual working in E 135. EE was 2nd away near crane.	NL-Injury/Illness - Contractor Injury	
2222	Richmond, CA - Refinery	11/14/2010 8:00:00	AM	Closed	Near Loss	Plant H2S alarm sounded. Plant evacuated. Source unknown at this time	During the DHT Turnaround, the Plant H2S sounded and personnel working the turnaround were orderly evacuated. The plant alarm cleared quickly. Loss time 30 minutes	NL-Environmental - Release	
2228	Richmond, CA - Refinery	11/15/2010 3:30:00	AM	Closed	Near Loss	Contractor EE hit in shoulder by flash light in heat exchanger	Wyal vs Wyal: EE was working in heat exchanger when flash light hit him in the right shoulder. Plant protection responded no medical treatment needed. EE had no pain and signed release waiver	NL-Injury/Illness - Contractor Injury	
2252	Richmond, CA - Refinery	11/15/2010 7:30:00	AM	Closed	Loss	V-80 EE hit with a falling hammer	UT Thomas: EE was playing the night shift crew on the V-80 Riser job and was hit by a falling hammer while standing on the top of the riser. The right shift crew were lowering their tools when a black piece of the hammer came loose from a refractory bucket being lowered with a rope to the bottom of the riser. Bucket being used was not a black bucket used by Chevron, it was a reinforced refractory bucket with legs.	Injury/Illness	(1) Being in the line of fire (1) SSB hyper extended their thumb. 1. Why? Thumb contacted turnstile bar. 2. Why? Turnstile bar stopped abruptly. 3. Why? Limited Turnstile rotation. 4. Why? Previous EE passing thru turnstile did not complete rotation. 5. Why? Turnstile allows passage without complete rotation. 6. Why? Turnstile Design. We couldn't find a workable solution for the design. 7. Why? EE didn't start a second branch. Why? Second Branch of 5 VAs. EE hyper extended thumb. 1. Why? Thumb contacted turnstile bar. 2. Why? EE didn't stop. 3. Why? Turnstile to stop. We stopped here and we had a loose condition will be a Safety Flash to make every one aware of this incident could happen to them and ask everyone to go slow thru the turnstile and grab a bar to move the turnstile with your hand.
2256	Richmond, CA - Refinery	11/15/2010 5:45:00	AM	Closed	Loss	EE over-Extended right Turnstile when Turnstile suddenly stopped when EE was going thru it	EE bagged in at the turnstile in front of Boiler shop, the EE heard the click and started to walk and pushed the turnstile, suddenly the turnstile stopped and came back causing the right thumb to over-extend	Injury/Illness	
2276	Richmond, CA - Refinery	11/14/2010 12:30:00	PM	Closed	Near Loss	Operator pickup got bumped by Forklift the driver's side pocket light, above the rear bumper. Operator reported the incident a day later to his normal crew ID who reported to the STL.	Sunday 11/14 at 12:30 pm, A Wharf Operator backed a forklift into a pickup parked in berth A causing very slight damage to the forklift area. I believe the driver's side pocket light, above the rear bumper. Operator reported the incident a day later to his normal crew ID who reported to the STL.	NL-Transportation - Company	(1) Driver inattention while driving forklift too close to second vehicle. (2) Forklift not allowed to park up parked close by. (2) Forklift to promptly report the vehicle accident during same shift
2279	Richmond, CA - Refinery	11/13/2010 2:00:00	PM	Closed	Loss	Polyl tank damage	Saturday, 11/13/10, a Polyl tank was found leaking in D2R from the top seam. It was noted at the time that the tank was very warm (poly tank max operating temperature limit is 140F). It is estimated that <3 gallons of Poly 10 Spent Chemical Cleaning Solution leaked into the process drain outside. The material was removed from the Poly tank and it was taken out of service. Two other Polyl tanks were also used in this service and will be evaluated for their integrity as well.	Equipment/Property Damage	(1) SOS: Training & Procedures: Valve Cover not Re-installed. (2) SOS: Training & Procedures: Procedure does not Cover Removing & Replacing Valve Cover. (3) SOS: Training & Procedures: No Guidelines for Checking the Tank Rating for Temperature. No Guidelines for Ensuring Tanks on Site meet Temperature Ratings for tasks being performed. (4) SOS: Training & Procedures: Confined Company was not notified that their equipment had been damaged in a lany failure.

2279	Richmond, CA - Refinery	11/19/2010	220700	PM	Closed	Loss	Poly tank damage	Saturday, 11/19/10, a Poly tank was found leaking in DGR from the top seam. It was noted at the time that the tank was very warm. (POL) Tank Max operating temperature until is 140°. It is estimated that 45 gallons of p-10 Spirit Chemical Cleaning solution leaked into the process water sump. The material was used for cleaning the tanks. The Poly tanks were also used in this service and will be evaluated for their integrity as well.	Environmental	Installed. (2) SOS: Training & Procedures: Procedure does not Cover Removing & Replacing Valve Cover. (3) SOS: Training & Procedures: No Guidelines for Checking the Tank Rating for Temperature. No Guidelines for Ensuring Tanks on Site meet Temperature Ratings for tests being performed. (4) SOS: Training & Procedures: Carnahan Company was not issued their own equipment had been damaged in a tank failure.
2282	Richmond, CA - Refinery	11/16/2010	220000	PM	Closed	Near Loss	EE burned from on R-1610 Top Head lifting lug	Came and Rigging Co. EE Ntknee on R-1610 Top Head lifting lug while setting up rigging and getting head ready to hoist. Head had to be tipped 180 degrees before hoisting to top of R-1610. EE told resident that knee get full. EE tried to walk out. A about 2:45 PM knee started to slip up, at that point EE was taken to Onco by Green and Rigging Co. (R-1610 Safety person).	NL-Injury/Illness - Contractor Injury	
2300	Richmond, CA - Refinery	11/19/2010	571000	PM	Closed	Loss	Loss of 6 S/C from LNC to 7-3168	LNC 5 S/C lost flow to 7-3168. Pump checked out fine. Product was routed off line to FCC feed tank. Later in shift, BAS operators found small section of stream coming out of service and fine cold. Tracing was turned back on and line heated back up. LNC forced product back to tank with no issue.	Quality	(1) SOS: Design & Engineering--Work on Steam Tracing is Not Included in the LOTO Process SOS: Training & Procedures--Work on Steam Tracing Not Captured on the Turnover. SOS: Training & Procedures--No One Walked the Line Before Commissioning it Back into Service
2303	Richmond, CA - Refinery	11/16/2010	123000	AM	Closed	Loss	Cell phone taken out of	Smog Busters- A cell phone was taking out of their mobile mfr office. Plant protection was notified and report made.	Security	(1) Theft
2303	Richmond, CA - Refinery	11/16/2010	123000	AM	Closed	Loss	Cell phone taken out of	Smog Busters- A cell phone was taking out of their mobile mfr office. Plant protection was notified and report made.	NL-Security - Property Loss or Theft- Physical Property	(1) Theft
2378	Richmond, CA - Refinery	11/16/2010	113500	AM	Closed	Loss	T-3220 Primary Seal Fabric Disintegrated	During seal inspection at T-3220 discovered the primary fabric has disintegrated. After search it receives three elated year 1989 version of EF-892 (1989 version of EF-892 was used in 2009 version of EF-892). This year 2009 version of EF-892 is very similar to the 2009 version and in a 2009 version of EF-892. (1) SOS: Design & Engineering--Work on Steam Tracing is Not Included in the LOTO Process SOS: Training & Procedures--Work on Steam Tracing Not Captured on the Turnover. SOS: Training & Procedures--No One Walked the Line Before Commissioning it Back into Service	Environmental	(1) Primary seal fabric not best suitable for sour water service
2386	Richmond, CA - Refinery	11/16/2010	101500	PM	Closed	Near Loss	tripped over hose and argon bottle fall between EE legs	P25 EE was unloading argon bottles off forklift and tripped backwards over steam hose and bottle fall between EE legs. EE said he was fine and signed release from team Plant protection.	NL-Injury/Illness - Contactor Injury	
2394	Richmond, CA - Refinery	11/17/2010	113000	AM	Closed	Near Loss	K-1060 at cylinder water jacket tank forced the STD 107D was also down for main and LOTTO. K-1060 was STD isolated and repaired in 40 minutes with no flaring or flare totalizer trips.	At approximately 7:00A.M. The K-1060 water jacket filling to #1 cylinder feet stage broke and began spraying water everywhere. The compressor crew was here working on the K-500 and went over to repair. Operations STD and isolated the machine and Main! Replaced the broken water jacket filling. At this time K-1070 in STD and hold for main. So Neither FCC was running. All sections in Isomax were aware of the issues and monitored the relief headers. Flare gas header pressure is 0.7720 at this time. No flaring.	NL-Operational Process/Procedures - Plant Run Downtime	(1) Failure of a carbon steel screwed fitting of the water jacket cooling system on K-1060 #1 cylinder due to apparent corrosion and age.
2440	Richmond, CA - Refinery	11/17/2010	114500	PM	Closed	Loss	Chewon EE taken to Refinery Clinic with chest pain.	Chewon EE Taken to Refinery Clinic with chest pain to be evaluated by Clinic staff.	Injury/Illness	(1) Personal Medical
2447	Richmond, CA - Refinery	11/17/2010	120000	AM	Closed	Near Loss	P-3028 pump oil dripped out on to steel deck.	P-3028 pump condenser cracked pressurecock opened slightly. Pump oil (ISO 150) drained onto outdoor pump steel deck.	NL-Environmental - Operational Leak	
2448	Richmond, CA - Refinery	11/17/2010	120000	AM	Closed	Loss	NH3 leak at 18PR	RTOP board operator got a high NH3 alarm. RTOP outside operators responded and decided to activate plant evacuation alarm. Outside operators detected Scott Air. It was discovered that the upstream double orbi isolation valve was leaking. This valve isolates the strippers from the scrubbers.	Operational Process/Procedures	(1) packing leak

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2449	Richmond, CA - Refinery	11/17/2010 12:00:00 AM	Closed	Loss	NH3 leak at 16pi.	Pressure was taken off the system and levels drained to mitigate the NH3 release. A technician was called to re-pack the valve, along with local isolation LC from C1810 to C1820. All clean was green and work was allowed to continue.	Environmental	(1) packing leak
2482	Richmond, CA - Refinery	11/18/2010 2:00:00 AM	Closed	Loss	Upper back muscle pain	JTThorp: EE was lifting hex mesh and felt muscle pull. Plant protection responded and sent to clinic for further evaluation.	Injury/Illness	(1) Improper lifting techniques
2489	Richmond, CA - Refinery	11/18/2010 4:30:00 AM	Closed	Near Loss	2 H2S alarms went off	Wollick: Two H2S monitors alarmed. EEs were doing clean up one 1681 Ferlan deck. The D&R EEs went off and so did their alarms. They didn't smell anything, felt fine, not dizzy, nauseous, or headache. Both EEs are fine and returned to work. End of shift.	NI-Injury/Illness - Confiscator Injury	
2493	Richmond, CA - Refinery	11/18/2010 8:30:00 AM	Closed	Loss	Pierced Finger, Elevator Door	Wollick: EE was opening one of the double doors to the elevator when another EE closed the opposite door, pinching the right ring finger.	Injury/Illness	(1) Body position, (hand)
2495	Richmond, CA - Refinery	11/18/2010 11:05:00 AM	Closed	Loss	Twisted Ankle, Wyatt Tool Trailer	Wyatt: EE was coming down the stairs at the west end of tool trailer row, at the North FCC Bld, and stepped on the edge of the old F-21 foundation pad and twisted his ankle. The transition from the concrete foundation and the dirt is about two inches with the edge marked with pink fluorescent paint.	Injury/Illness	(1) Uneven surface
2511	Richmond, CA - Refinery	11/17/2010 12:00:00 AM	Closed	Near Loss	Plastic, orange industrial debris bin moved adjacent to the hot exhaust of a diesel powered light plant. Hot exhaust melted and damaged 2 layers of the bin plastic and exposed the engine components. The filling did was damaged.	Orange ID bin, managed by Waste Management contractor through the Haz Waste group was discovered during a Haz Waste audit to have been rolled away from its original drop off point, to a location adjacent to a diesel powered light plant, very near its exhaust. The radiant heat generated from the exhaust pipe melted the bin's exterior plastic at the filling slot. In addition to the damage incurred to the bin, the heat radiating into this area of the bin could've easily lit the bin's contents on fire.	NI-Fire/Explosion	
2511	Richmond, CA - Refinery	11/17/2010 12:00:00 AM	Closed	Near Loss	Plastic, orange industrial debris bin moved adjacent to the hot exhaust of a diesel powered light plant. Hot exhaust melted and damaged 2 layers of the bin plastic and exposed the engine components. The filling did was damaged.	Orange ID bin, managed by Waste Management contractor through the Haz Waste group was discovered during a Haz Waste audit to have been rolled away from its original drop off point, to a location adjacent to a diesel powered light plant, very near its exhaust. The radiant heat generated from the exhaust pipe melted the bin's exterior plastic at the filling slot. In addition to the damage incurred to the bin, the heat radiating into this area of the bin could've easily lit the bin's contents on fire.	NI-Equipment/Property Damage - General liability	
2527	Richmond, CA - Refinery	11/18/2010 4:40:00 AM	Closed	Near Loss	Flaring event from loss of cooling water pump P-460	A cat suffered momentary loss of cooling water when P-460 tripped offline for approximately 10-20 minutes. Loss of cooling caused an excess of LHG to be carried through to the H2 Booster system causing a high level S/D at V-912A which caused K-800A to trip offline. Numerous starts were attempted after the machine went offline but were unsuccessful due to an alarm message of a ground fault. Without K-800's online Rhinoceros H2 now was stopped causing a flaring event. Flared gas 0.15th unit permissives could be met for a period of 15-300.	NI-Environmental - Release	(1) Well steam supply to TP460, (2) NP526 Spare pump did not come on line
2547	Richmond, CA - Refinery	11/18/2010 10:30:00 AM	Closed	Loss	Operator was injured while installing a pressure gauge	During precommissioning checks on the new level gauge/transmitter for V734, an operator was installing a pressure gauge onto the top vent of the new gauge glass. The gauge glass is located on the first deck of V734 and the vent valve is overhead and inaccessible for most people. The operator chose to stand on the vessel manway ladders that are next to the gauge glass to access the vent valve and install the gauge. As the operator was tightening the gauge, the pipe wrench slipped and caused the operator to lose balance and fall back on to the deck. The fall was approx 2.5-3ft from the top of the manway ladders to the deck. The operator landed and felt his ankle on impact. The operator also struck his leg along the deck with the right side of the chest. The operator felt pain in his leg/ankle and chest. Plant protection was called to come out and attend to the operator. The operator was	Injury/Illness	(1) The operator stood on the manway while installing the pressure gauge, (2) An incorrect tool was selected to perform the task of installing the pressure gauge, (3) Not all those present at the job site recognized the operator standing on the manway as a high risk task and none used Stop Work Authority to stop the operator from continuing to install the pressure gauge
2547	Richmond, CA - Refinery	11/18/2010 10:30:00 AM	Closed	Loss	Operator was injured while installing a pressure gauge	During precommissioning checks on the new level gauge/transmitter for V734, an operator was installing a pressure gauge onto the top vent of the new gauge glass. The gauge glass is located on the first deck of V734 and the vent valve is overhead and inaccessible for most people. The operator chose to stand on the vessel manway ladders that are next to the gauge glass to access the vent valve and install the gauge. As the operator was tightening the gauge, the pipe wrench slipped and caused the operator to lose balance and fall back on to the deck. The fall was approx 2.5-3ft from the top of the manway ladders to the deck. The operator landed and felt his ankle on impact. The operator also struck his leg along the deck with the right side of the chest. The operator felt pain in his leg/ankle and chest. Plant protection was called to come out and attend to the operator. The operator was	NI-Injury/Illness - Employment Injury	(1) The operator stood on the manway while installing the pressure gauge, (2) An incorrect tool was selected to perform the task of installing the pressure gauge, (3) Not all those present at the job site recognized the operator standing on the manway as a high risk task and none used Stop Work Authority to stop the operator from continuing to install the pressure gauge

2746	CA - Refinery	11/23/2010 AM	Closed	Near Top of System not	While commissioning the FCCU 1st steam header a welder noticed a whisp of steam coming from the pipe he was working on.	Paperwork Incomplete Sent	also being worked on. 2 EWD was unclear. Did not clearly define the work that was taking place.
2869	Richmond, CA - Refinery	11/23/2010 12:00:00 AM	Closed	Near Loss	HNF product went off-leaf for pour spec as result of DMC shutting down during an increase in feed rate to the plant. The work station operator finished the DMC and the HNF product was routed off-leaf when the plant pour spec reached -3. The product was routed off-leaf for six hours.	NL-Quality - Product Quality (lbs)	(1) Operator failed to Notice DMC had tripped during Feed Increase
3028	Richmond, CA - Refinery	11/27/2010 1:00:00 PM	Closed	Near Loss	Flu Systems	NL-Injury/Illness - Contractor Injury	
3152	Richmond, CA - Refinery	11/29/2010 12:45:00 PM	Closed	Near Loss	FCC S/D Murbiness; Personal Medical.	NL-Injury/Illness - Employee Injury	
3166	Richmond, CA - Refinery	11/29/2010 8:20:00 AM	Closed	Loss	Cheyron, Personal Medical Condition, Near Industrial	Equipment/Property Damage	(1) Mechanic missed judged height of boom being raised from cradle (standard operating procedure) while traveling
3204	Richmond, CA - Refinery	11/29/2010 8:20:00 PM	Closed	Near Loss	TOP INVESTIGATION: S-75 slide valve opened while staging being removed	NL-Injury/Illness - Contractor Injury	(1) SOS: Training & Procedures: Stage rigger almost fell. HSE recommendation to visually verify not followed. Thought no one was in the area. Got an all clear by radio. Scaffold rigger working near inside slide valve. Stage rigger inside didn't know about the test. Stage Riggers were not included in HSE. No Communications. Not all affected workers get included in a HSE.
3208	Richmond, CA - Refinery	11/29/2010 10:00:00 PM	Closed	Loss	TOP INVESTIGATION: Trailing holding reaction mix on the reaction mix valve. No one was on that immediate deck.	Equipment/Property Damage	(1) SOS: Design & Engineering: 4209 Blind Fall onto Reaction Mix Valve. Trailing Holding the Blind Valve. Name Assembly Stripped Off L-Bottom. Series 632 Trailing Valve. (2) SOS: Maintenance & Inspection: Frame assembly (slides) were installed incorrectly. Install instructions were not visible. Instructions were printed over. Painted to designate as a Cheyron rigging device. (3) SOS: Safety Issue, Training & Procedures: Although disregarded during this incident, encouraged at all levels throughout the refinery. Although not communicated at the time, there was a need to secure the incident site for safety purposes. Some equipment involved in the incident was removed/moved strictly after the incident, thus not allowing a proper investigation, given the serious nature. No one was able to take photos of the incident site. Visual information could not be gathered.
3220	Richmond, CA - Refinery	11/29/2010 1:00:00 AM	Closed	Loss	The 130A Line sub off from the 262 Line going to T-3165 ruptured under the load going into 15 Pump Station	Loss of Containment	(1) The 2003 Inspection Recommendation was not completed as written, (2) The 2009 inspection did not UT any of the joints where damaged insulation was noted in 2003
3220	Richmond, CA - Refinery	11/29/2010 1:00:00 AM	Closed	Loss	The 130A Line sub off from the 262 Line going to T-3165 ruptured under the load going into 15 Pump Station	Environmental	(1) The 2003 Inspection Recommendation was not completed as written, (2) The 2009 inspection did not UT any of the points where damaged insulation was noted in 2003
3243	Richmond, CA - Refinery	11/30/2010 1:00:00 AM	Closed	Loss	FCC S/D EE leaking flange and tight headed	Injury/Illness	(1) Plant Odors

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3328	Richmond, CA - Refinery	11/25/2010 12:10:00 PM	Closed	Loss	Florida Voyager spill	Steam 10" X 10". Spill response equipment was deployed by the vessel crew. Steam had dispersed. Ship made immediate notifications to port the response manual checked. Notifications also made by 1783 STI.	Environmental	(1) Investigation & root cause to be provided by Chevron Shipping. (2) To be provided by Chevron Shipping
3372	Richmond, CA - Refinery	12/22/2010 3:30:30 AM	Closed	Loss	particle in eye	P2S EE was helping to guide a port hand to hit the cutting line on a pipe and while help guiding piece a metal flew out of the blade and enter into the top of eye, unable to remove and EE was sent to Clinic. The clinic was able to remove metal particle.	Injury/Illness	(1) Improper PPE, should have also been wearing a face shield.
3406	Richmond, CA - Refinery	11/25/2010 8:00:30 PM	Closed	Loss	PLC failure during jet JP8 Injection run	A new grade of Jet (JP8) production required the installation of an injection stud at 21 Pump Station. This stud included a Programmable Logic Controller (PLC) to control the rate of chemical injection during JP8 blends. Soon after commissioning, the PLC failed during the injection period of a JP8 run.	NL-Business Process - Business Interruption	
3409	Richmond, CA - Refinery	12/22/2010 8:00:30 AM	Closed	Loss	Drain pipe tripping hazard in walk way	HYDRO SISO P-360 Drain pipe tripping hazard in walk way	NL-Equipment/Property Damage - General Liability	
3525	Richmond, CA - Refinery	12/22/2010 11:00:00 AM	Closed	Near	EE feeling ill	Chevron: EE while inside the 11M trailer, became ill. EE is a traveler that had just arrived from another Chevron Refinery.	NL-Injury/Illness - Employee Injury	
3545	Richmond, CA - Refinery	12/5/2010 7:00:30 AM	Closed	Near	Slipper Water product Off-test	7 am slipper water BD+ yellow and PH 10.2 routed OFF-Test	NL-Quality - Product Quality (lin)	
3555	Richmond, CA - Refinery	12/2/2010 12:10:00 PM	Closed	Loss	contractor slipped and fell	EE was coming out of dehydrator and turned the corner and slipped and fell.	Injury/Illness	(1) Immediately after EE fell, Marie Melendez and Kelly Campion investigated the area and found the floor dry and free of debris.
3605	Richmond, CA - Refinery	11/15/2010 12:00:00 AM	Closed	Loss	Non-BAAQMD permitted storage of Cuetantra in RO Plant	Organic Compound (Cuetantra) stored on-slip in container with a capacity greater than 200 gallons. Violation of BAAQMD Regulation 2, Rule 1-123.	Regulatory Compliance	(1) Nalco employees not aware of the BAAQMD permitting limit of 200 gallons for transportation AND storage of organic compounds. (2) Chevron HES employees not aware that Nalco employees had to use different size tote and transfer to a different size tote for storage and use
3625	Richmond, CA - Refinery	12/6/2010 10:15:00 AM	Closed	Loss	Contract Employee Exposure	Goobar Packing: While a Contract Employee was installing a U Bolt at the Alky Upgraded project, an unknown release occurred causing the employee to breathe vapors, but that was not confirmed. Plant Protection and Operators was immediately informed.	NL-Injury/Illness - Contractor Injury	(1) Unknown vapors
3627	Richmond, CA - Refinery	12/6/2010 2:30:00 PM	Closed	Near	Project electricians were drilling a hole in a PLC Junction box for a new conduit, area operations reported to the electricians that they received a high voltage shock. The Electrician's Protection Device (EPD) Cause of the problem is under investigation	The project electricians were drilling a hole in a Hoffman Junction box that contained a PLC for the ERD. The electrician stepped in with the area operations and obtained a non open flame permit for the drill, while they were working the EPD was not turned on. The electrician and told them they caused the alarm, but they believe the body of the drill may have caused the bus holder of the power supply and that may have caused the holder to be pushed in, this may have caused the PLC to power down causing the alarm.	NL-Supplies Process - Business Interruption	(1) The temperature indication on the Emission Reduction Device (ERD) dropped to 32 degrees while it was in service. Why did the temperature indication drop to 32 degrees? While the electricians were drilling a hole in the bottom of a Hoffman box the drill contacted the side of a 24 volt power supply. Why did contacting the power supply cause a temperature indication drop? The cap on the spring loaded bus holder was broken. In fact the slightest touch would cause the bus to come out of the holder killing power to the power supply and causing the loss of the temperature indication
3631	Richmond, CA - Refinery	12/6/2010 3:00:00 PM	Closed	Loss	Particle in the Eye, 2-21	P2S: EE had finished cutting off some temporary lugs on the 2-21 line when the heated stone on the deck above him. Other EE's were cleaning the deck above to allow the scaffold to be removed and as he looked up some debris fell and a small metal particle became lodged in his left eye.	Injury/Illness	(1) Falling Particle
3700	Richmond, CA - Refinery	12/7/2010 8:10:00 AM	Closed	Near	Possible scratch in Contract employee's lower buttocks	A 3 sub-contract employees were positioning a piece of rebar weighing approximately 100# into place, the employee on the end fell a pain in his lower left buttocks. It appears the individual was trying to nudge the rebar into the proper location using his body.	NL-Injury/Illness - Contractor Injury	
3710	Richmond, CA - Refinery	12/7/2010 12:35:00 PM	Closed	Near	Lifted PRD on C-170 to Relief - Tripped Toller	FCC unit is down for Turnaround but in the process of commissioning equipment and changing levels. A level had been established initially in C-170 and left in a parked condition. The valve ended up leaking by eventually filling up the column. When steam was commissioned to the boiler, the vessel over-pressured and lifted to relief. Why did C-170 lift to relief? Column was full and when steam was commissioned to boiler it over-pressured. Why was the column full? As part of commissioning, a level was changed to C-170 then blocked in and left in a parked condition. The valve leaked by which eventually caused the column to fill up. Why was the column allowed to fill up? The column was not purged of the liquid and excessive steam coming in to the CBO, the CBO may have raised the alarms associated with that column.	NL-Regulatory Compliance - Permit Exceedance	(1) VNM commissioning of several systems from turnaround mode, CBO missed high level condition in C-170 which lead to overpressuring of Column when steam was introduced to boiler.

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401B	Richmond, CA - Refinery	12/12/2010 12:00:00 AM	Closed	Loss	GHT TK-1670 PV729 800# steam shutdown controller firm under-sized	During the 4th Q1 2010 GHT Aromatic Bed Changeout 43P/725 TK-1670 800# steam shutdown controller firm was reduced to improve control and prevent the valve from operating on its seat (in short valve was oversized). During GHT startup on Dec 12th K-1670 was tested to max governor while circulating Nitrogen. The new firm was too small to handle the steam requirements for this condition and led to ~1 shift delay to GHT startup.	Operational Process/Procedures	firm change work. EWO was not revised for valve trim changes wanted. Work Group discussing the plan forward for the firm change did not question need for EWO revision or MOC initiation requirements. Work Order was approved for valve change. After the change was complete, the valve was checked and found to be oversized. Valve consistently ran close to seat causing Chattering and possible failure. Old firm was too big for the normal process. Engineering Calculations incorrect for Valve Trim Correction. (2) Steeper Recommendations & Corrective Action: Design & Engineering: Documentation - Aligning IMI, Engineering, Machine Shop, Vendor & Meridian would add immediate valve & save time when evaluating future changes. Machine Shop records do not retain the original valve design which is identified as critical information. Overdue information not aligned with current valve trim kit configuration. Engineers & Instrumentation get their specifications/CV's from vendor information with the original permits. This information is rendered useless when modifications are not tracked/entered/communicated with vendors or process. Note: CV is the flow coefficient for the capacity of a trim. This can be used to describe the flow factors such as pressure, specific gravity, & temperature of the fluid. Serial number imbedded on the valve bonnet/body (from manufacturer) does not always match the outside tracking tag number. Therefore, tracking of changes for the vendor is rendered obsolete when calculating specs/CV's for that particular valve. The paper trail disappeared from the
4019	Richmond, CA - Refinery	12/11/2010 12:00:00 AM	Closed	Loss	GHT TK-1670 PV725 800# steam shutdown controller	During the 4th Q1 2010 GHT Aromatic Bed Changeout 43P/725 TK-1670 800# steam shutdown controller firm was reduced to improve control and prevent the valve from operating on its seat (in short valve was oversized). During GHT startup on Dec 12th K-1670 was tested to max governor while circulating Nitrogen. The new firm was too small to handle the steam requirements for this condition and led to ~1 shift delay to GHT startup.	Operational Process/Procedures	(1) SDCS-Design & Engineering: Loss Profit Opportunity: Shift 1-2 Known Losses: GHT TK-1670 steam shutdown controller firm was reduced to improve control and prevent the valve from operating on its seat (in short valve was oversized). Work Order was approved for valve change. After the change was complete, the valve was checked and found to be oversized. Valve consistently ran close to seat causing Chattering and possible failure. Old firm was too big for the normal process. Engineering Calculations incorrect for Valve Trim Correction. (2) Steeper Recommendations & Corrective Action: Design & Engineering: Documentation - Aligning IMI, Engineering, Machine Shop, Vendor & Meridian would add immediate valve & save time when evaluating future changes. Machine Shop records do not retain the original valve design which is identified as critical information. Overdue information not aligned with current valve trim kit configuration. Engineers & Instrumentation get their specifications/CV's from vendor information with the original permits. This information is rendered useless when modifications are not tracked/entered/communicated with vendors or process. Note: CV is the flow coefficient for the capacity of a trim. This can be used to describe the flow factors such as pressure, specific gravity, & temperature of the fluid. Serial numbers imbedded on the valve bonnet/body (from manufacturer) does not always match the outside tracking tag number. Therefore, tracking of changes for the vendor is rendered obsolete when calculating specs/CV's for that particular valve. The paper trail disappeared from the
4025	Richmond, CA - Refinery	12/13/2010 12:25:00 AM	Closed	Near Loss	Two minor firing events during start-up	C-160 over pressure causing flow to the flare during start-up	Operational Process/Procedures - Release	
4239	Richmond, CA - Refinery	12/15/2010 4:00:00 AM	Closed	Near Loss	Unable to get out with GHT product due to a closed valve on the 206 Line.	Operations was attempting to route GHT product to T-3180 via the 206 Line. Several attempts were made, but to no avail. SAS Refined HO walked the 206 Line and found that a block valve downstream on 43FC941 was in the closed position.	Operational Process/Procedures - Plant Run Out/Slow Down	(1) Prior to 2005, there was no consistent practice for managing overdue PFD inspections, documenting them in

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4526	Richmond, CA - Refinery	12/21/2010	10:00:00	AM	Closed	Near Loss	Conditions not met for FCC Plant 8-18 Components	from the program for reasons unknown at this time. The MOI issued by the BAAQMD on 12/21/10 alleges our Alternative Monitoring program implemented since that date has entirely included the FCC.	NI-Regulatory Compliance - Non	(1) Because of the heated discussion, operations, construction, and safety personnel did not get involved with the decision to proceed with the lift. (2) The project manager rushed into addressing the situation without stopping back and making sure that all the appropriate personnel were contacted by mistake. (3) Biggs should have, but did not, obtain a general work permit prior to placing the crane and truck / trailer for the lift.
4529	Richmond, CA - Refinery	12/20/2010	12:00:00	PM	Closed	Near Loss	TX 65PCC lift did not follow prescribed HSE, RI 390 (Crane and Rigging Practices), and did not involve Operations and Electrically Qualified personnel in new critical lift plan near 11-tension power lines.	Selling of the new 1X65, PCC Building, and steel power pole required crane and rigging expertise. This lift was around 12.5KV power lines near the #1 Power Plant. On Thursday, December 16 a HSE was performed (no record found of that HSE or action items from that HSE) to determine the safe plan of action. At that HSE, a plan was developed that required 450-3 and Yard Loop North to be switched out and deenergized via UAE Operations Switch Cards. On Thursday evening, a communication was put out to UAE Operations and the Project Management team that detailed the work plan for the lift to be executed on Wednesday, December 21. The lift for 1X65PCC was executed on Tuesday, December 20th. A different lift procedure than was discussed in the HSE was used and no lines were deenergized. Operations was not informed or consulted in this change.	NI-Equipment/Property Damage - General Liability	(1) Because of the heated discussion, operations, construction, and safety personnel did not get involved with the decision to proceed with the lift. (2) The project manager rushed into addressing the situation without stopping back and making sure that all the appropriate personnel were contacted by mistake. (3) Biggs should have, but did not, obtain a general work permit prior to placing the crane and truck / trailer for the lift.
4529	Richmond, CA - Refinery	12/20/2010	3:00:00	PM	Closed	Near Loss	TX 65PCC lift did not follow prescribed HSE, RI 390 (Crane and Rigging Practices), and did not involve Operations and Electrically Qualified personnel in new critical lift plan near 11-tension power lines.	Selling of the new 1X65, PCC Building, and steel power pole required crane and rigging expertise. This lift was around 12.5KV power lines near the #1 Power Plant. On Thursday, December 16 a HSE was performed (no record found of that HSE or action items from that HSE) to determine the safe plan of action. At that HSE, a plan was developed that required 450-3 and Yard Loop North to be switched out and deenergized via UAE Operations Switch Cards. On Thursday evening, a communication was put out to UAE Operations and the Project Management team that detailed the work plan for the lift to be executed on Wednesday, December 21. The lift for 1X65PCC was executed on Tuesday, December 20th. A different lift procedure than was discussed in the HSE was used and no lines were deenergized. Operations was not informed or consulted in this change.	NI-Injury/Illness - Employee Injury	(1) Because of the heated discussion, operations, construction, and safety personnel did not get involved with the decision to proceed with the lift. (2) The project manager rushed into addressing the situation without stopping back and making sure that all the appropriate personnel were contacted by mistake. (4) Biggs should have, but did not, obtain a general work permit prior to placing the crane and truck / trailer for the lift.
4529	Richmond, CA - Refinery	12/20/2010	3:00:00	PM	Closed	Near Loss	TX 65PCC lift did not follow prescribed HSE, RI 390 (Crane and Rigging Practices), and did not involve Operations and Electrically Qualified personnel in new critical lift plan near 11-tension power lines.	Selling of the new 1X65, PCC Building, and steel power pole required crane and rigging expertise. This lift was around 12.5KV power lines near the #1 Power Plant. On Thursday, December 16 a HSE was performed (no record found of that HSE or action items from that HSE) to determine the safe plan of action. At that HSE, a plan was developed that required 450-3 and Yard Loop North to be switched out and deenergized via UAE Operations Switch Cards. On Thursday evening, a communication was put out to UAE Operations and the Project Management team that detailed the work plan for the lift to be executed on Wednesday, December 21. The lift for 1X65PCC was executed on Tuesday, December 20th. A different lift procedure than was discussed in the HSE was used and no lines were deenergized. Operations was not informed or consulted in this change.	NI-Equipment/Property Damage - Equipment	(1) Because of the heated discussion, operations, construction, and safety personnel did not get involved with the decision to proceed with the lift. (2) The project manager rushed into addressing the situation without stopping back and making sure that all the appropriate personnel were contacted by mistake. (4) Biggs should have, but did not, obtain a general work permit prior to placing the crane and truck / trailer for the lift.
4529	Richmond, CA - Refinery	12/20/2010	3:00:00	PM	Closed	Near Loss	TX 65PCC lift did not follow prescribed HSE, RI 390 (Crane and Rigging Practices), and did not involve Operations and Electrically Qualified personnel in new critical lift plan near 11-tension power lines.	Selling of the new 1X65, PCC Building, and steel power pole required crane and rigging expertise. This lift was around 12.5KV power lines near the #1 Power Plant. On Thursday, December 16 a HSE was performed (no record found of that HSE or action items from that HSE) to determine the safe plan of action. At that HSE, a plan was developed that required 450-3 and Yard Loop North to be switched out and deenergized via UAE Operations Switch Cards. On Thursday evening, a communication was put out to UAE Operations and the Project Management team that detailed the work plan for the lift to be executed on Wednesday, December 21. The lift for 1X65PCC was executed on Tuesday, December 20th. A different lift procedure than was discussed in the HSE was used and no lines were deenergized. Operations was not informed or consulted in this change.	NI-Injury/Illness - Contractor Injury	(1) Because of the heated discussion, operations, construction, and safety personnel did not get involved with the decision to proceed with the lift. (2) The project manager rushed into addressing the situation without stopping back and making sure that all the appropriate personnel were contacted by mistake. (4) Biggs should have, but did not, obtain a general work permit prior to placing the crane and truck / trailer for the lift.
4658	Richmond, CA - Refinery	12/23/2010	17:55:00	AM	Closed	Loss	Communication Line Severed during Excavation	During excavation for the new Refinery Quarry Road Alignment Project, a 50 pair copper voice cable was severed near the existing point at Ridge Road. The cable was buried approximately 18in. deep with no indication of its location. The severed cable was inspected by a technician from CTC and was determined to be live, currently supplying phone communications to 834 gates (Prod & Gull entry. Plant Protection has been notified and a repair ticket has been called in.	Equipment/Property Damage	(1) Why were there odor complaints regarding washdown station activities? Because the offloading of high temp. material into the washdown station after other offends likely contributed to liberating the odors. Why? Because the drivers did not notice there were any odors when they offloaded. Why? Because the drivers had not routinely checked the downwind SSG of the washdown station area and high temperature tanks had not been of a particular concern. Why? A downwind creek had not been a requirement for the washdown station. Why? Previous complaints were present to have been resolved as a result of this particular activity at the washdown station.
4658	Richmond, CA - Refinery	12/23/2010	3:15:00	PM	Closed	Near Loss	Internal odor complaint tracked down to Plant Protection to the WDS area.	Internal odor complaint (mercaptan type odor) off westbound wind from Admin building, resulted in Plant Protection called to investigate source. The westbound area was identified as the source of the odor. The odors were localized within the refinery. After further investigation, the waste transferred from the washdown station to the WDS, installed and sealed similar to the odor in the washdown station. The odor was not detected until the odor was tracked down to the odor being liberated. One of which was a higher temperature load from a B35 pump.	NI-Regulatory Compliance - Non Compliance - Air	(1) Why were there odor complaints regarding washdown station activities? Because the offloading of high temp. material into the washdown station after other offends likely contributed to liberating the odors. Why? Because the drivers did not notice there were any odors when they offloaded. Why? Because the drivers had not routinely checked the downwind SSG of the washdown station area and high temperature tanks had not been of a particular concern. Why? A downwind creek had not been a requirement for the washdown station. Why? Previous complaints were present to have been resolved as a result of this particular activity at the washdown station.

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5236	CA - Refinery	PM	2:00:00	Closed	Near Loss (K (High Sulfur))	Without sampling to 1459 sampling raising the sulfur level in that tank which when used as a blend component threw off the tank spec.	- Business Interruption	(1) Investigation team was not able to pinpoint how the FCC leakage started. The sulfur level in the FCC was not checked until the leakage was found and sulfur tanks and sulfur lines were sampled, and all were on spec. As a result, Ops planning will start frequent sampling on sulfur, H2O, and fuel oil during FCC start up to its 2010 Cracking TMA process restart.
5244	Richmond, CA - Refinery	12/26/2010 AM	12:00:00	Closed	Loss	HSGO from T-1506 was blown in air-SU and loaded onto barges	Quality	(1) Injection valve failed causing the system to flood with sulfur and causing sulfur to leak into the system. When operated the valve had a run leak through the cross before system could be cleared.
5245	Richmond, CA - Refinery	12/22/2010 AM	12:00:00	Closed	Near Loss	Sulfur Analyzer plugging problems	NL-Quality - Product Quality (Tm)	(1) SOS: Maintenance & Inspection: C-310 Leaks of Level Indication. Both Level Indicators began unparallel leaking. Flow changes during a shutdown can offset the calibration. Calibration of L1's is not perfect. (2) SOS: Training & Procedures: Control room level indication. Both Level Indicators began unparallel leaking. When the L1's were fixed, the level fell open during shutdown to help process operators watch.
5256	Richmond, CA - Refinery	11/2/2011 PM	6:00:00	Closed	Near Loss	Loss of C-310 level indication	NL-Quality - Product Quality (Tm)	(1) EE was walking and writing at the same time
5279	Richmond, CA - Refinery	11/2/2011 AM	8:15:00	Closed	Loss	EE walking hit a spoke in a valve wheel	Injury/Illness	(1) EE was walking and writing at the same time
5286	Richmond, CA - Refinery	12/2/2011 PM	9:54:00	Closed	Near Loss	North hook at berth 4 (after releasing two vessels)	NL- Equipment/Property Damage - Equipment Damage	(1) problem with the equipment locking mechanism
5304	Richmond, CA - Refinery	11/2/2011 PM	10:00:00	Closed	Loss	sample ignited in flash unit	Equipment/Property Damage	(1) SOS: Design & Engineering: Sample Ignited. Gravity Results Not Checked. Procedure Not Followed. Operator Was Extra Busy. Crew was at Minimum, so working two rooms. Operator on vacation and no overtime was scheduled. Was scheduled to take the truck run. (2) SOS: Training & Procedures: Sample Tags Were Switched (Closed and Gasoline). Unable to Determine. BSS Operator May Have Switched the Tags When Delivering to QCD. Discussing Samples with QCD Operators. QCD Head Operator May Have switched the Tags while breaking down the Samples. Discussing Samples with Operators. Phone Calls and other Distractions. (3) SOS: Personal Protective Factors: Sample Ignited. Bottles and Samples Look Alike.
5304	Richmond, CA - Refinery	11/2/2011 PM	10:00:00	Closed	Loss	sample ignited in flash unit	Fire/Explosion	Misloaded gasoline sample at diesel ignited in PM Flash unit, damaging unit. Operator extinguished fire with extinguisher.

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5348	Richmond, CA - Refinery	1/17/2011	3:15:00	PM	Closed	Loss	Gale 121 damage	Bob Powell was returning to the long wheel through gate 121 at the causeway end. (Bob Powell) was in the passenger seat. He was hearing a trailer back up and he saw the gate close. He was trying to get out of the trailer. The gate was closing on the back end of the trailer. There was no damage to the trailer. There was another worker there on a walkie. The previous time going through the gate he had to wait and waited to secure the gate wouldn't close on us. This time he went through first and we followed.	Equipment/Property Damage	(1) Knew the gate stays open for a long time and figured he would make it through without hitting his vehicle
5442	Richmond, CA - Refinery	1/11/2011	13:20:00	AM	Closed	Loss	P-1453 shutdown with possible motor damage.	At 01:52, COS received alarms indicating possible shutdown of the wash water pump, P-1453. Operators responded and found the pump down. The motor had a burning smell. The switch gear was showing a ground fault.	Equipment/Property Damage	(1) see Journal for investigation..... The only anomaly I found was the trip unit is set to 73% of the tap of the breaker, equal to 500 amps pick up on long time, this pick up exceeds the LRA of the motor even if you take the service factor in account. Within 13.5 years is you far out of end of life, I suspect the possibility of the motor was allowed to run and add excess heating of the motor winding and overall shorter life span of the motor.
5482	Richmond, CA - Refinery	1/12/2011	12:00:00	AM	Closed	Loss	On issue(s) lead to missed quarterly Reg. 6-18 inspections	Late first quarter 2010, new VOC components identified from Shutdown/MOC work. - Early 2nd quarter, all new valves entered into LeakDAS database for scheduling. Issue identified with db in the placement of initial rule (first monthly/quarterly inspection frequency). Database administrator requested help from inspection logic (LeakDAS) support. The initial rule needed to be manually inputted with a script from LeakDAS support that also needed a daily license key to activate the change. Change was made on an individual basis. - 3rd quarter appears components were scheduled by the db and inspected normally. - 4th quarter, appears that components jumped from 2nd quarterly period (Q2) to annual inspection frequency (Q6) thereby not capturing a quarterly inspection on approximately 400 valves. First quarter 1/10/11 discovered missed inspections during Q4/QC of LRA data. Local regulations require 5 consecutive quarterly leak free inspections before component(s) can go on an annual inspection frequency.	Regulatory Compliance	(1) The database inspection requirements had been changed from quarterly to annually for many components. The database had an error in it that didn't allow for normal single component changes to be made directly within the program. (2) SOS: Maintenance & Inspection/OC inspection missed. There was a change in the database. (3) SOS: Training & Procedure/VOC inspection missed. The database inspection requirements had been changed from quarterly to annually for many components. The wrong script had been entered which resulted in a mass change. The database administrator did not fully understand what the script was going to do. (4) SOS: Training & Procedure: VOC inspection missed. The database inspection requirements had been changed from quarterly to annually for many components. The wrong script had been entered which resulted in a mass change. The database support group did not properly question the request for the script. (5) SIDERAR: SOS: Training & Procedure: - A large volume of inputs needed to be entered into the system and may have contributed to lack of communication and verification. There are many sets of rules required for different classes of components and step inspection which contributes to the complexity of the process.
5487	Richmond, CA - Refinery	1/11/2011	10:00:00	AM	Closed	Loss	Inflation to left eye caused by wind blown dust	Employee was in process of operating a forklift when gusting winds blew dust in employee's face.	NI-Injury/Illness - Contractor Injury	(1) Employee was performing normal duties in a safe manner and using all due precautions and proper PPE. Unexpected wind gusts in the area caused sudden dusty condition which ended as suddenly as it started.
5487	Richmond, CA - Refinery	1/11/2011	10:00:00	AM	Closed	Loss	Inflation to left eye caused by wind blown dust	Employee was in process of operating a forklift when gusting winds blew dust in employee's face.	NI-Injury/Illness - Contractor Injury	(1) Employee was performing normal duties in a safe manner and using all due precautions and proper PPE. Unexpected wind gusts in the area caused sudden dusty condition which ended as suddenly as it started.
5520	Richmond, CA - Refinery	1/11/2011	12:00:00	AM	Closed	Loss	Near F-1500 furnace HMC RI/OFFPG drop	At approximately 2:00 AM the 5 board operator was attempting to bring the Fuel Gas-air ratio back into control/operator adjusted the Air/Fuel ratio controller to allow the FC to increase and the move set the FG valve open VERT quickly causing the FG controller to trip	NI-Operational Process/Procedures - Safety Systems	(1) Move on Gas to air ratio controller caused FG controller to open quickly and trip FIC to F-1500
5520	Richmond, CA - Refinery	1/11/2011	12:00:00	AM	Closed	Loss	Near F-1500 furnace HMC RI/OFFPG drop	At approximately 2:00 AM the 5 board operator was attempting to bring the Fuel Gas-air ratio back into control/operator adjusted the Air/Fuel ratio controller to allow the FC to increase and the move set the FG valve open VERT quickly causing the FG controller to trip	NI-Operational Process/Procedures - Safety Systems	(1) 1 Why did the motor MP-332A fail? It failed because the motor windings were grounded. 2 Why were the motor windings grounded? They were grounded because the installation degraded. 3 Why was the motor insulation degraded? It was degraded due to possible overheating of the windings. 4 Why would the windings overheat? They overheated due to a combination of contamination and mechanical wear. 5 Why would contamination and mechanical wear occur? This normally occurs over many years of operation, and in this case this was the original motor. 6 Why wasn't this motor decommissioned or repaired during the A-Train action 2010 shutdown? Planned to retire H2 internal motor early 2010, and a recent motor test on 3/18/2009 has good results early 2010, and a recent motor test to fail in 2010. Anticipated retiring H2 Trains in late 2009 and early 2010, and recent motor test on 3/18/2009 indicated MP-332A should be serviceable through 2010.
5520	Richmond, CA - Refinery	1/11/2011	12:00:00	PM	Closed	Loss	Loss	IPF Rekey #2030605 South Isomax MEA pump P-332A unexpectedly shutdown resulting in a temporary loss of ~700000 lbs of gas. The motor was electrically isolated and tested on 9/27/2010 by a certified NEMA. The results indicated grounded windings. Upon visual inspection, there were signs of water intrusion or moisture damage. The motor space heaters were in good working order drawing about 2 amps, and had been confirmed by analysis 9 months earlier. Also, this 1000 hp Westinghouse motor was tested on 3/18/2009 without any issues.	Equipment/Property Damage	

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5551	Richmond, CA - Refinery	9/17/2010 11:00:00 AM	Closed	Loss	IP5 Rekey #2030270 AI about 1000H, P1845 is observed to be gassing off and this initiated fluctuation of flow swinging from 0 - 160 bph.	and this initiated fluctuation of flow swinging from 0 - 160 bph. As a result of this fluctuation, C1820 operation was effected. 18 plant has had issues all day with P-1845 NH3 scrubber product/redux pump Cavitation and testing flow. CBO believes the NH3 content in the scrubber end of the plant is the cause of the problem. The higher ammonia content in the system may be the cause of factor in P-1845 cavilling and losing flow directly affecting C-1850 pressure and causing NH3 to be off spec	NL-Quality - Product Contamination (tn)	(1) Pressure problems at 18 psi NH3 scrubber section caused pressure excursion in C-1820.
5554	Richmond, CA - Refinery	9/12/2010 7:30:00 AM	Closed	Loss	IP5 Rekey 2025789 18 PLANT ROUTED OFF TEST DUE TO UNSTABLE OPERATION IN C-420	IP5 Rekey 2025789 8 PLANT ROUTED OFF TEST DUE TO UNSTABLE OPERATION IN C-420 12/26/2010 09:46 - RLOP 18 Plant was routed off test due to high Solenium results. Feed composition change impacted column profiles. NH3 concentration spiked. Feed reduced and adjustments were made on NH3 stripper to compensate for higher NH3 concentration.	Quality	(1) Increased ammonia feed concentration of the sour water feed - OWS could not recognize column instability was cause by NH3 % in feed/reduced ammonia feed concentration of the sour water feed - OWS could not recognize column instability was due to increase NH3 % in feed.
5571	Richmond, CA - Refinery	11/12/2011 12:10:00 PM	Closed	Loss	Contractor burns back of hand	Contractor was working at 2A separator cleaning a portable tank for cleaning purposes. A 1" steam hose, red/black, was connected with 2" connectors to the tank fill line. Just before noon the contractors arrived back from lunch and shut the steam off to the tank. About five to ten minutes later the contractors then proceeded to remove the steam line from the tank. When they disconnected the fillings hot condensate splashed out onto one of the contractors "mechanic" style gloves. The hot condensate soaked thru the back of the contractors gloves and burned him. He immediately reported the incident to his supervisor and the Chevron team was notified.	Injury/Illness	(1) Why did the contractor get burned? - Because hot condensate soaked thru his gloves onto his skin. - Why? - Because the contractor was not wearing the proper type of gloves to protect from a splash hazard. - Why? - Because he didn't think there was going to be any splash hazard to be concerned with. - Why? - Because previously the contractor had not seen hot condensate in the line when disconnecting the fillings.
5577	Richmond, CA - Refinery	11/22/2011 2:28:00 PM	Closed	Loss	Diesel Production routed off-test	T-3215 Diesel Production was routed off-test for approximately 2 hours after a sulfur spike at the DHT caused by a miscommunication on cold feed routing. At the beginning of dayshift the RSL requested that the off-test jet in T-1518 be routed to T-1492 (DHT Cold Feed). At that time T-1492 was routed to DHT cold feed. T&B protocols to not transfer material into a DHT cold feed tank while it is being fed to the unit. The T&B STL relayed the request to the crew and instructed that DHT cold feed be switched to T-1493. The crew performed all of these actions without incident. T-1493 contained high sulfur diesel (Normal) that directly led to the sulfur spike at the DHT. The diesel production was then routed off-test. It was later determined that RSL Ops. Coord stated that T-1518 was routed to T-1492 within the RSL Ops. Coord email sent by Barry Led to the null. The T&B STL assumed that the RSL / Ops. Coord knew the T&B protocol.	Quality	(1) Lack of communication between STL & RSL.
5593	Richmond, CA - Refinery	11/22/2011 5:50:00 PM	Closed	Heat Loss	Flare gas recovery overpressure tripped FCC Distiller	PC-1050 the recycle valve on the Flare gas recovery machines plugged slightly due to low flows in the Flare gas system. When NISO started to depressurize R-510 low flows in the Flare gas system pressured up and PC-1050 appeared plugged. This in turn tripped the tribolectors on FCC, SISO and NISO flares with flabber flamm in FCC.	NL-Operational Process/Procedures Safety Systems	(1) Low flows to GTR caused plugging on the PC-1050 recycle valve and subsequent poor pressure control.
5609	Richmond, CA - Refinery	9/29/2010 8:15:00 AM	Closed	Loss	IP5 Rekey # 2041094 FCC fire on piping at side of flare during flare operation.	IP5 Rekey # 2041094 FCC flare fire on piping at side of flare during flare operation. Flames were observed at vertical run of piping (molecular seal drain line) on the side of the flare stack of the FCC Flare. Steam was injected with existing steam out line and flames were extinguished. 5 Why? Why was there flame from the FCC drain line? The line was corroded. Bottom half of the pipe was missing. Why was the line corroded and missing? Too much volume from steaming out Canada's acid water tank in high volume daily. Why was there steaming out Canada's acid water tank in high volume daily? Too much volume from steaming out Canada's acid water tank in high volume daily. Operators duty was to steam out daily which created an acid water. According to a contract engrinner working on all of the refinery flares it is not a best practice to steam tank molecular seal daily.	Fire/Explosion	(1) Operations was doing a routine duty daily of steaming the flare which caused a large amount of condensate and liquid to build up at high volumes. The liquid due to the presence of sulfur created an acidic environment. The low pH caused daily duty of steaming the flare which caused a large amount of condensate and liquid to build up at high volumes. The liquid due to the presence of sulfur created an acidic environment. The low pH caused corrosion of the pipe.
5630	Richmond, CA - Refinery	9/20/2011 9:00:00 AM	Closed	Loss	Green Card - Potential for pedestrian/forklift accident near Cracking Bus Stop	IP5 Rekey # 2020847 FCC flare. Brief flare activity due to high flow from Ally relief drum V-734. Source being investigated, possibly PRD C-1490 at Ally Flare.	NL-Regulatory Compliance - Non Compliance - Air	(1) Replacing all PRDs of the type was not warranted. There was not enough evidence to prove that the model of PRD was the cause of the PRD filling in 2008.
5630	Richmond, CA - Refinery	11/12/2011 9:00:00 AM	Closed	Loss	Green Card - Potential for pedestrian/forklift accident near Cracking Bus Stop	IP5 Rekey # 2020847 FCC flare. Brief flare activity due to high flow from Ally relief drum V-734. Source being investigated, possibly PRD C-1490 at Ally Flare.	NL-Injury/Illness - Contractor Injury	
5630	Richmond, CA - Refinery	9/20/2011 9:00:00 AM	Closed	Loss	Green Card - Potential for pedestrian/forklift accident near Cracking Bus Stop	IP5 Rekey # 2020847 FCC flare. Brief flare activity due to high flow from Ally relief drum V-734. Source being investigated, possibly PRD C-1490 at Ally Flare.	NL-Transportation - Company	

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5780	Richmond, CA - Refinery	9/27/2010 PM	Closed	Loss	IPS Relay 2038228 TOP INVESTIGATION-- DUMPSTER FIRE	cleaning agent in an aerosol can among the debris, along with a couple of pair of leather work gloves. Notes: During the investigation, it was found that personnel from other areas also dump their debris in this bin; the Richmond Transportation Department (RTD) and the Gasoline Pump Area. It is also accessed by some contractors to dump some of their debris when around the Machine Shop or RTD areas. It was found that normally the Machine Shop uses clear plastic bags in their wastebaskets (cubes). And RTD uses black plastic bags in their wastebaskets (cubes).	Fire/Explosion	deep trash only dumpster. (2) WARNING DEVICES (LABEL/SIGNALS): Current Labels grade on trash cubes and dumpster are not visible enough to raise awareness on improper disposal of material into clean trash. (3) SIEBARS ISSUE-SOS: Maintenance & Inspections (Maintenance)-- Steam trap drain at end of platform (ground level) does not have a splash guard/cover to prevent possible steam flash burn
5780	Richmond, CA - Refinery	1/17/2011 9:05:00 AM	Closed	Near Loss	Scratch to upper right lip when struck by falling scrap metal.	After drilling a hole in the support of a steel high elevated deck, the employee reached up to grab the edge of the deck to pull himself out from underneath. When he grabbed for the board of the deck, he mistakenly knocked a piece of scrap metal from off the deck. As he was looking up, the scrap metal fell to the right side of his safety glasses and then scratched his upper right lip as it continued to the ground. Close examination showed that the scrap had left a scratch in the lens of the safety glasses directly above and in line with the scratch on the lip.	NL-Injury/Illness - Contractor Injury	(1) In setting up for the job, the employee focused on the hazards of the job and the one that would be needed. The process followed created a hazard that was not recognized or was ignored as the job progressed. (2) A small job of short duration was not completely thought through and employee went about the task with only min tools for the basic task. LP&A was not consulted.
5787	Richmond, CA - Refinery	1/17/2011 11:10:00 AM	Closed	Near Loss	H2S Monitor Activations (10)	Verdine (Chen, JVI) began monitoring H2S monitor activations, during planned maintenance activities, during the start of the job. At the start of the job it was foggy and calm wind conditions, but after a short period of time the wind started to blow South toward the crane being used for the job and the standby crew. When the conditions changed, a short time later (10) H2S monitors activated ranging from 8ppm to two monitors registering <100ppm. All affected workers were ordered to be examined by EMTs which were sitting outside the area and belonged to the two workers in breaking air performing the work being done. Monitor readings were included for data only.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	
5884	Richmond, CA - Refinery	1/12/2011 10:00:00 AM	Closed	Loss	TX-380 Voltage Drop From Starting P-38	While being led by TX-380, P-38 was started. Starting P-38 caused a voltage drop in the electrical system which in turn tripped the Long Vent Emission Reduction Device to trip offline. Ships are unable to load or unload when the Long Vent Emission Reduction Device is not in operation.	Operational Process/Procedures	(1) The investigation has determined that there is an issue with the VFD drive which is preventing the proper feed back to the PLC system before it times out which causes the alarm. Based on these findings on-site support personnel will attempt to resolve the condition. The investigation team discussed the requested solutions for what board operators to be able to change the identity injection set point from the PLC system to the VFD system. It was determined that the injection system is fully loaded. If not, the VFD parameters and add in the requested liberty amount change functionality. PLC code modifications will be required.
5811	Richmond, CA - Refinery	1/13/2011 12:00:00 AM	Closed	Loss	Offical Diesel Wear Scar Cargo	A Diesel Cargo with an offspace wear scar was released from Richmond Long wharf.	Operational Process/Procedures	(1) Why did D/S range on P-507B develop a leak - Flange had loosened Why had flange loosened - Flange was torque and not tensioned, labor found to be the preferred method. Why wasn't flange tensioned - Both methods of tightening flange were acceptable. Preferred method of tightening flange wasn't used. Flange operators didn't know past issues with flange heating. It was left up to mechanics to choose which method to use to tighten flange.
5819	Richmond, CA - Refinery	1/18/2011 6:30:00 PM	Closed	Loss	possible leak of 1st flange discharge side	OPS initially disconnected leak on 1/18. On 1/18 leak appeared to increase dramatically. Decision was made to swap feed pumps at that time.	Equipment/Property Damage	
6028	Richmond, CA - Refinery	1/15/2011 12:45:00 PM	Closed	Near Loss	Flaring during depressuring of the LNC	During and attempt to depressure the LNC during a shutdown of the Plant, Flare Gas Recovery overpressured and a small flame was observed at the ROP flare.	NL-Regulatory Compliance - Non Compliance - Air	
6089	Richmond, CA - Refinery	1/20/2011 7:05:00 AM	Closed	Near Loss	Loss of boiler feed water to FCC	In the process of isolating T-1689, boiler feed water to FCC was lost. The boiler feed water tank and the production from the RO plant was both blocked to FCC.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) SOS: Design & Engineering: Loss of Boiler Feed Water to FCC. Valve was closed coming from the RO Plant. Miscommunication between DAS and Co-Gen. No Detailed Procedure Didn't think it was needed. Simple Procedure. No Drawings Attached to the MOC. Thought Drawings weren't needed. Since Only 1 Valve Would be Closed, HSE Did Not include Other Business Units. Felt emails to the other units would be sufficient.
6102	Richmond, CA - Refinery	1/20/2011 2:45:00 PM	Closed	Loss	Nausea while grinding inside F-2303	JVI, EE was inside of F-2303 grinding when he started to detect odor inside his respirator. He stopped work and proceeded to exit the equipment, and became nauseous during this time. Due to the noise inside caused by the work he was performing, was unaware that his H2S monitor had also activated and saw a peak of 46 ppm.	Injury/Illness	(1) PPE Mark
6132	Richmond, CA - Refinery	1/20/2011 11:30:00 PM	Closed	Near Loss	H2S Monitor alarmed	JVI - Cutting in F-2303 when H2S monitor went off. 28PPM EE felt fine and returned to work.	NL-Injury/Illness - Contractor Injury	

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6176	Richmond, CA - Refinery AM	1/20/2011 7:00:00	Closed	Near	Failed to perform a closing gauge on T-3107	Failed to perform a closing gauge on T-3107 for the convenience of waiting to gauge more than one tank at a time. Operational needs overwhelmed a transfer to the tube division needed to be completed before the inspector had returned to the rig. T-3107 thus eliminating a delay to transfer T-3107 to the tube division.	NL-Business Process -Business Process	
6211	Richmond, CA - Refinery	1/20/2011 4:55:00	Closed	Near	Heat tag fail on a piece of rope	JVI - While gouging in F -2370 a piece of hot slag hit on a piece of rope.	NL-Fire/Explosion	
6242	Richmond, CA - Refinery	1/20/2011 3:00:00	Closed	Loss	Particle in the eye	A JVI employee received a particle in his eye while carbon arcing on E-2302. Employee lifted his face shield when he was finished with the job not realizing that the air on his equipment was not completely shut off which caused dust to enter in his eye.	Injury/Illness	(1) Face Shield was removed
6243	Richmond, CA - Refinery	1/20/2011 12:00:00	Closed	Near	Sat wrong component to blind tank	An Operator who returned to work after three months and was refreshing the job when he set a component tank which had been switched during his time off to the gasoline blower, and it wasn't discovered till three hours later when they started having problems making seal points.	NL-Business Process -Business Interruption	
6245	Richmond, CA - Refinery	1/20/2011 6:00:00	Closed	Loss	Particle in the eye	JVI - Particle in the eye. Refractory work going on though he wasn't doing it. He was just standing there.	Injury/Illness	(1) Improper use of PPE
6304	Richmond, CA - Refinery	1/21/2011 12:15:00	Closed	Near	Lost AND injection at JHT	Anticodon chemical pumps SID on low level at 10% of tank volume on 12/111 @ 12:15hrs	NL-Business Process -Business Interruption	(1) LI-285 was not calibrated to the bottom of the tank
6304	Richmond, CA - Refinery	1/21/2011 12:15:00	Closed	Near	Lost AND injection at JHT	Anticodon chemical pumps SID on low level at 10% of tank volume on 12/111 @ 12:15hrs	NL-Lessons Learned	(1) LI-285 was not calibrated to the bottom of the tank
6313	Richmond, CA - Refinery	1/24/2011 8:30:00	Closed	Loss	Mechanic pinched finger between wrench and valve actuator while loosening nuts.	Mechanic was loosening the double 3 1/2" nuts on P-601 discharge flange on the deck above the pump to facilitate installing the flange. One nut was sticking and the mechanic was using the wrench to remove it. The nut suddenly turned free causing the wrench to pinch their finger between the wrench and HV5008 valve actuator.	Injury/Illness	(1) (For documentation purposes) Mechanic not aware of pinching his finger in a pinch point.
6355	Richmond, CA - Refinery	1/24/2011 3:45:00	Closed	Loss	Back Strain	Two mechanics were moving 4x8 sheets of insulating material, the mechanics were moving the material while in a flat position, while they were moving the material they needed to adjust the material to the lip & down position to fit it through a door. When they adjusted the material to the new position one of the mechanics hit a pull in his back. Mechanic seen at clinic and return to work with follow up in morning	Injury/Illness	(1) The workers changed position of the material while in motion, causing worker to strain muscle in side
6380	Richmond, CA - Refinery	1/25/2011 12:00:00	Closed	Loss	JPG leak at pod sampler	At approximately 02:00hrs, the SPH Operator was making a visual inspection of the CIL Injection system and JPG pod sampler at #7 pump station. The Operator discovered that there was a moderate leak on the filling directly above the spring loaded bypass valve for the lubing. "The spring loaded valve was installed on dayshift 1/24. The Operator notified the RHIO and SLL Plant. Protection was summoned and the leak was isolated. The isolation valve is underneath the 15" Jet in the overhead pipeway accessible only via the staging area at that location. During the attempt to reach the leak, attempts were made to close the main valve to the pod sampler without success. "This needs to be checked to ensure that no instrumentation was damaged prior to reset.	NL-Environmental -Operational Leak	(1) The stainless steel tubing separated from the bypass valve because the argon was not admitted properly after the installation of a new spring loaded valve.
6380	Richmond, CA - Refinery	1/25/2011 12:00:00	Closed	Loss	JPG leak at pod sampler	At approximately 02:00hrs, the SPH Operator was making a visual inspection of the CIL Injection system and JPG pod sampler at #7 pump station. The Operator discovered that there was a moderate leak on the filling directly above the spring loaded bypass valve for the lubing. "The spring loaded valve was installed on dayshift 1/24. The Operator notified the RHIO and SLL Plant. Protection was summoned and the leak was isolated. The isolation valve is underneath the 15" Jet in the overhead pipeway accessible only via the staging area at that location. During the attempt to reach the leak, attempts were made to close the main valve to the pod sampler without success. "This needs to be checked to ensure that no instrumentation was damaged prior to reset.	Environmental	(1) The stainless steel tubing separated from the bypass valve because the argon was not admitted properly after the installation of a new spring loaded valve.
6405	Richmond, CA - Refinery	1/25/2011 8:00:00	Closed	Loss	Flash Burn, R-510	Chiefly Services, EE was working on an inspection cover at the top of R-510 lagging holes on a 6" opening, when a pyrophoric reaction occurred. Worker was wearing a breathing helmet and blue tyvek coveralls, minimizing the exposure, with minor irritation to the neck area.	Injury/Illness	(1) Change in the process for dumping reactors
6405	Richmond, CA - Refinery	1/25/2011 8:00:00	Closed	Loss	Flash Burn, R-510	Chiefly Services, EE was working on an inspection cover at the top of R-510 lagging holes on a 6" opening, when a pyrophoric reaction occurred. Worker was wearing a breathing helmet and blue tyvek coveralls, minimizing the exposure, with minor irritation to the neck area.	NL-Operational	(1) SCS: Design & Engineering: Radio system is at a maximum capacity during Shift change. SCS training is overdue. (2) SCS: Training & procedures: During Shutdown: Confined companies live in portable restrooms. (3) SCS: Training & procedures: Misunderstanding of radio protocol by users. Personnel have a talk time of 10 seconds

6410	CA - Refinery AM	10/15/00	Closed	Near Loss	Communication during shutdown	Loss of radio communication during the shutdown. L11939 was the original incident that was deleted from the system. This is a re-write of the event.	Process/Procedures - Safety Systems	or more. Design of radio allows for emergency button to be pushed accidentally. Lack of training.
6446	CA - Refinery PM	12/25/2011	Closed	Loss	Particle in the Eye 3 SRU	JVI; EE was lifting up a pallet on R-2301, welder started grinding when EE left something hit him in the eye.	Injury/Fitness	(1) Did not follow procedures
6450	Richmond, CA - Refinery PM	12/25/2011 2:25:00	Closed	Near Loss	650 steam safety killing in FCC	#850 steam safety in the FCC killed during a slowdown of K-303 Vhty 59PC0851 was closed in the field and showing open on the board (650 steam from FCC was closed also note: Operators were using job aid PPH-4020 to place K-303 to Idle #1	NL-Operational Procedures - Safety Systems	
6477	Richmond, CA - Refinery AM	12/26/2011 4:10:00	Closed	Near Loss	Fire in F-2301	JVI, Wallick: Late in the shift tonight we experienced a small fire inside F-2301 which required the assistance of Plant Protection to extinguish. The JVI folks were working cutting out one nozzle and welding one patch on the South end of the furnace. Wallick had 3 firewatch folks working with JVI. At the time the fire was detected JVI had been out of the furnace for 20 minutes waiting for the inspectors to OK to arrive. Wallick was standing by for the 30 minute inspection period. When the inspector arrived he found the fire on the North end of the furnace through the tubes as well as spotted the burn on the back of the Sulfur. Wallick notified the STD operator who was in the area. Wallick applied water through the hole which had been cut by JVI. Upon their attempt to extinguish the fired Ops called Plant Protection to help. There were no injuries to personnel. Plant Protection extinguished the fire.	NL-Fire/Explosion	(1) Procedure required running mixers on T1798 and T1799 to derive tank. These mixers had not been operated for an extended period of time. The operators did not follow the segment that had led to the problem. (2) Ship residual compartment initial condition sample #246892 failed with a +1.6 color
6480	Richmond, CA - Refinery PM	12/26/2011 10:00:00	Closed	Near Loss	JP-8 Engine of head to Emergency Stand ship allowed bad conditions in all compartments	Upon sampling the Emergency Stand it was found that the compartments of loaded JP-8 had particulates in the samples that caused the condition tests to fail. All other tests passed.	NL-Quality - Product Contamination (Int)	(1) Equipment not PM'd according to OEM recommendations. (2) SCOS Maintenance & Inspections: P-302A Diesel Engine Damaged. Piston rattled around inside cylinder. Push rod had come loose and fell coming in contact with piston. Bridge assembly came loose allowing the push rod to come loose. Internal prevention maintenance was not performed according to OEM.
6508	Richmond, CA - Refinery AM	12/26/2011 9:00:00	Closed	Loss	P-302B diesel engine damage	While conducting monthly steamoperating tests at #13 separator, the area Operator noticed smoke & oil coming from P-302B diesel engine exhaust. Engine has been removed and disassembled to determine extent of damage.	Equipment/Property Damage	
6516	Richmond, CA - Refinery AM	12/26/2011 10:15:00	Closed	Near Loss	Damaged contractor company trailer door	A Curran Supervisor asked a Wallick forklift driver to help lift a pallet load onto the process above onto the trailer door ramp and broke it. The trailer deck/ramp was not built for such a heavy load.	NL-Equipment/Property Damage - General Liability	
6518	Richmond, CA - Refinery AM	12/26/2011 11:00:00	Closed	Near Loss	A report for a batch of CARB motor gasoline was submitted to CARB regulations that was game areas with incorrect information regarding the property of Alkalis in mags.	Roland odor release from storage pit adjacent to the North Yard Chem tank farm.	NL-Lessons Learned	
6542	Richmond, CA - Refinery PM	12/26/2011 2:30:00	Closed	Near Loss	A report for a batch of CARB motor gasoline was submitted to CARB regulations that was game areas with incorrect information regarding the property of Alkalis in mags.	OCD SQDC submitted to CARB a predicted model report created with an incorrect value for Alkalinity, volume%. The report is an official notification of CARB of the product specification for this specific batch mag sold in the plant. The report was submitted to CARB via email and faxed to the Plant Quality Risk Management group. Any discrepancy on the report is a Predicted Quality Risk. A batch of Alkalinity being issued to the Refinery. The report has been submitted and confirmed received by CARB.	NL-Quality - Processwork / Production	(1) Operator was not alerted to a measurement that was beyond tolerance
6552	Richmond, CA - Refinery PM	12/26/2011 7:45:00	Closed	Loss	P-713 leak on discharge screened fitting	TGC Ops discovered a leak on the discharge side of Mx-713 as a "bleaded nipple going to PSI gauge. Operator put a steam lance on it and called the HO who responded with other operators. There was a block valve in front of where the leak was that could be used to isolate the PSI gauge and the leak however it would be awkward due to a hazard to personnel to get to it. The decision was made to isolate the pump section and discharge to safely stop the leak. Good job by Ops to recognize the hazard and take actions to mitigate the hazard associated with this leak.	NL-Environmental - Operational Leak	(1) Pump AFS speed has a non welded nipple that leaked.

6532	Richmond, CA - Refinery	11/26/2011 7:15:00 PM	Closed	Loss	P-713 leak on discharge screwed fitting.	The leak was that could be used to isolate the PSI gauge and the leak however it would be awkward and pose a hazard to personnel to get to it. The decision was made to isolate the pump suction and discharge to safely stop the leak. Good job by Ops to recognize the hazards and take action to mitigate the hazards associated with this leak.	Environmental	(1) Pump AFS spool has a non welded nipple that leaked.
6568	Richmond, CA - Refinery	11/26/2011 4:00:00 AM	Closed	Loss	Pain in the back	Went to work today (the 27th) around 2 PM he had a little ache. It got progressively worse until he was bent over in pain.	Injury/Illness	(1) Body Position
6568	Richmond, CA - Refinery	11/26/2011 4:00:00 AM	Closed	Loss	Pain in the back	Went to work today (the 27th) around 2 PM he had a little ache. It got progressively worse until he was bent over in pain.	Injury/Illness - Contractor Injury	(1) Body Position
6611	Richmond, CA - Refinery	11/27/2011 12:30:00 AM	Closed	Loss	Lacerations due to fall	Bay Valve: EE was walking from the gravel lot on the South side of the 2300 when he fell. The gravel lot was covered in some uneven asphalt along the edge of the gravel lot.	Injury/Illness	(1) Uneven surfaces
6855	Richmond, CA - Refinery	5/30/00 AM	Closed	Near	Green Card - Drivels over-taking in parking lot	Green Card While driving in parking lot by Calentia, was overtaken by people driving around the speed bumps. This has happened multiple times (3) this week.	NL-Transportation - Personal Use	
6650	Richmond, CA - Refinery	11/27/2011 5:30:00 AM	Closed	Near	Green Card - Drivels Parking lot	Green Card Saw driver drive through gap in concrete block parking stops using the crosswalk as a roadway.	NL-Transportation - Personal Use	
6778	Richmond, CA - Refinery	11/27/2011 5:46:00 AM	Closed	Loss	Motor vehicle accident	Contract employee pulled up behind a Chevron car that was stopped at the stop sign at the "V". The car started to proceed by rolling forward a few feet then stopped again. The car then belted the car followed but failed to react. The car stopped in the second lane. The van slightly scraped the back of the car, causing minimal damage.	Equipment/Property Damage	(1) Intention to cut in front of them.
6780	Richmond, CA - Refinery	11/28/2011 5:15:00 PM	Closed	Loss	Particle in the eye	JVI - Particle in the eye while pouring in F - 2301	Injury/Illness	(1) Airborne particles powered by compressed air
6780	Richmond, CA - Refinery	11/28/2011 5:15:00 PM	Closed	Loss	Particle in the eye	JVI - Particle in the eye while pouring in F - 2301	NL-Injury/Illness - Contractor Injury	(1) Airborne particles powered by compressed air
6874	Richmond, CA - Refinery	11/31/2011 4:40:00 AM	Closed	Loss	TOP INVESTIGATION: Smoke coming from behind insulation in F-2301	JVI - JV was walking in F 2301 when a small was noticed. Ops was called. Welders eyes started to burn and he exited the furnace. Upon exit he noticed the smoke coming from a approx. 18 in nozzle on the east side.	NL-Fire/Explosion	(1) Airborne particles powered by compressed air (1) SCS: Training & Procedures: Smoke in F-2301. Chemical reaction when Oxygen entered the furnace and ignited the sulfur dust (belting refractory). Sulfur is impregnated into the refractory over the years. This happens in ALL SRU's. No written contingency plan in place (best practices only). (2) Sidecar issues: SCS: Training & Procedures: When combining two incidents closely related to each other, it needs to be documented in both incidents in the database (IMPACT ERM) so that the investigators have full understanding.
7049	Richmond, CA - Refinery	12/1/2011 12:00:00 AM	Closed	Loss	Truck backed off road in main tank field	Employee was out in the main tank field looking for T-3076 tank site. Employee was in the T-234 area and realized that he was not in the correct area. The employee drove up the road and realized he was at a dead end and proceeded to back up - 2 feet. Employee took the rear end of the truck side, and then the front also side to the side of the road. The employee and passenger realized that they were in a steep angle and made the decision to exit the vehicle from the driver side door. The employee called their supervisor and reported the incident.	Equipment/Property Damage	(1) Driver knew he was unable to see the drop off onto the inclined portion of the driveway but looked over his right shoulder and proceeded back anyway. He was also unaware of how close the right tires were to the edge of the pavement. Stop/Avoid Work: Authority was not exercised. (2) Driver went up a narrow driveway at Tank 234 suspecting he could reach Tank 3076. He relied on incomplete mental notes and relied on an abbreviated tank field map that did not show roads. (3) Driver went forward (li) he realized the driveway is a dead end even though he knew he was at the wrong location. There was nothing in place to inform visitors that the driveway exists.
7080	Richmond, CA - Refinery	11/9/2011 5:30:00 AM	Closed	Loss	T-3076 SEAL INSPECTION/DAMAGED PRIMARY SHOES	During the seal inspection of T-3076, the primary shoes seals where showing gaps in a 30' area, upon inspection it was discovered that the shoes are corroded and out of compliance with Reg 8 Rule 6 (BAAACMD) in that 30 foot area.	Equipment/Property Damage	(1) SPAC incomplete - No MOC information can be found when sour water was stored in the mid 1990's. The investigation team assumed that there was no MOC conducted. (2) Inspection techniques need improvement - The current inspection program does not cover the integrity of the mechanical shoe
7080	Richmond, CA - Refinery	11/31/2011 9:30:00 AM	Closed	Loss	T-3076 SEAL INSPECTION/DAMAGED PRIMARY SHOES	During the seal inspection of T-3076, the primary shoes seals where showing gaps in a 30' area, upon inspection it was discovered that the shoes are corroded and out of compliance with Reg 8 Rule 6 (BAAACMD) in that 30 foot area.	Regulatory Compliance	(1) SPAC incomplete - No MOC information can be found when sour water was stored in the mid 1990's. The investigation team assumed that there was no MOC conducted. (2) Inspection techniques need improvement - The current inspection program does not cover the integrity of the mechanical shoe

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7120	CA - Refinery	2/20/00 PM	Closed	Near	Green Card - Electrical Cord in Walkway	Electrical cord was not in use - only used when using BBO. Potential tripping hazard - many people were stepping over the cord each day.	NL-Injury/Illness - Contractor Injury	
7120	Richmond, CA - Refinery	2/21/2011 2:00:00 PM	Closed	Near	Green Card - Electrical Cord in Walkway	Green Card - Power cord from electrical outlet to a BBO left in walkway. Electrical cord was not in use - only used when using BBO. Potential tripping hazard - many people were stepping over the cord each day.	NL-Injury/Illness - Employee Injury	
7151	Richmond, CA - Refinery	2/22/2011 12:30:00 PM	Closed	Loss	Contractor Particle in eye	Foreign particle in right eye.	NL-Injury/Illness - Contractor Injury	(1) Foreign particle in eye.
7152	Richmond, CA - Refinery	2/21/2011 3:02:00 PM	Closed	Near	Harmless loss of Heavy Gas in GHT	Received high level alarm in G-170 bottoms, saw that the flow to GHT had dropped off. Sent outside operator out to check on pump status while calling O&R to check if their valve was open or not. Outside operator confirmed that 170-171 had tripped off fire. All operating parameters were normal and pump looked fine, so re-started pump to re-establish flow to GHT. GHT did not have gas to maintain fire, only effect seen was that the level in V-1690 (surge drum) dropped from 52% to 51%.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) The pump was inspected and found to be in good operating order. After looking at all the variables involved, there were no plant changes at that time. The only conclusion is that some component came through with the heavy gas (water, light end?) and caused the cavitation.
7182	Richmond, CA - Refinery	2/21/2011 12:00:00 PM	Closed	Near	Green Card - Potential MVC	Green Card - Person reporting was driving north on Center Street when a car that was stopped at the Stop sign on the road behind the Catalina pulled out and turned left in front of the reporter's car.	NL-Transportation - Company	
7187	Richmond, CA - Refinery	12/10/2010 3:00:00 PM	Closed	Loss	FCC Operator During StartUp	The three vessel V-13 was put in service and an operator occurred.	Environmental	(1) V-13 was put in service without the precipitator being online
7208	Richmond, CA - Refinery	2/22/2011 6:00:00 AM	Closed	Near	Green Card - Almost hit while walking in cafeteria parking lot	Green Card - Daily it is a fight for survival walking from a parking spot to the tech center, especially in the crosswalk. More often than not, people will make u-turns through the crosswalk, endangering those using it. Suggestions: install yellow bollards in the crosswalk in between the parking spaces to eliminate the ability to drive through. Also install concrete stops in the parking spots missing them to eliminate the ability to drive through.	NL-Transportation - Personal Use	
7208	Richmond, CA - Refinery	2/22/2011 6:00:00 AM	Closed	Near	Green Card - Almost hit while walking in cafeteria parking lot	Green Card - Daily it is a fight for survival walking from a parking spot to the tech center, especially in the crosswalk. More often than not, people will make u-turns through the crosswalk, endangering those using it. Suggestions: install yellow bollards in the crosswalk in between the parking spaces to eliminate the ability to drive through. Also install concrete stops in the parking spots missing them to eliminate the ability to drive through.	NL-Transportation - Contractor	
7208	Richmond, CA - Refinery	2/22/2011 6:00:00 AM	Closed	Near	Green Card - Almost hit while walking in cafeteria parking lot	Green Card - Daily it is a fight for survival walking from a parking spot to the tech center, especially in the crosswalk. More often than not, people will make u-turns through the crosswalk, endangering those using it. Suggestions: install yellow bollards in the crosswalk in between the parking spaces to eliminate the ability to drive through. Also install concrete stops in the parking spots missing them to eliminate the ability to drive through.	NL-Injury/Illness - Employee Injury	
7208	Richmond, CA - Refinery	2/22/2011 6:00:00 AM	Closed	Near	Green Card - Almost hit while walking in cafeteria parking lot	Green Card - Daily it is a fight for survival walking from a parking spot to the tech center, especially in the crosswalk. More often than not, people will make u-turns through the crosswalk, endangering those using it. Suggestions: install yellow bollards in the crosswalk in between the parking spaces to eliminate the ability to drive through. Also install concrete stops in the parking spots missing them to eliminate the ability to drive through.	NL-Transportation - Company	
7211	Richmond, CA - Refinery	1/27/2011 12:00:00 PM	Closed	Near	Green Card - 6ft plus hole on the side of Channel Street	Green Card - There is a 6ft plus hole on the side of Channel Street that has a 4' x 4' piece of plywood covering the hole. (East of Cannell and South of raw switch gear by substation #2.) I have told CCE (Contra Costa Electric) safety and Chevron of the issue over a month ago. Need to fill the hole.	NL-Injury/Illness - Contractor Injury	
7211	Richmond, CA - Refinery	1/27/2011 12:00:00 PM	Closed	Near	Green Card - 6ft plus hole on the side of Channel Street	Green Card - There is a 6ft plus hole on the side of Channel Street that has a 4' x 4' piece of plywood covering the hole. (East of Cannell and South of raw switch gear by substation #2.) I have told CCE (Contra Costa Electric) safety and Chevron of the issue over a month ago. Need to fill the hole.	NL-Injury/Illness - Employee Injury	
7212	Richmond, CA - Refinery	2/22/2011 1:30:00 PM	Closed	Loss	K1050 low pressure shutdown	66PC1050 (Flare Gas Recovery suction pressure controller) was reading high compared to 66P1105. An instrument person was in the process of calibrating 66PC1050 and K1050 shutdown from low suction pressure. About two weeks ago as part of the flare gas electrical calibrator project the low pressure shutdown (66P11052) was moved from a field hard wire shutdown to a software shutdown, through the Honeywell computer, which is activated when 66PC1050 drops to below 4PSI. In the past 66PC1050 could be zeroed without shutting down flare gas.	Environmental	(1) Temporary MOC 22550 reviews to transfer SID logic to 66P11052 during FGCR control panel calibrator did not identify the need to temporarily red tag or red-cap transmitter to identify it as a SID transmitter, and the MOC training and description did not specifically identify 66PC1050 transmitter as containing a SID

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7243	Richmond CA - Refinery	2/29/2011 5:00:00 PM	Closed	Near Loss	Entry Point not Unattended	still inside. Bricks were being passed through the manway to a conveyor belt and Attendant assisted the other workers from the Erdent's company. The fourth Erdent stuck his head out and told the Attendant that he was going to remain inside for awhile longer. Clean up continued and when they were finished, started to leave the area for a break. Entry Attendant took some red tape and taped off the manway after the other workers left and also left for a break forgetting about the fourth Erdent. Erdent exited the furnace and noticed that the Attendant was gone and reported this fact to his Supervisor.	NI-Injury/Illness - Contractor Injury	(1) Lack of Mental Awareness, (2) Lack of Mental Awareness
7250	Richmond CA - Refinery	2/29/2011 3:17:00 PM	Closed	Loss	Gate 31	Contractor (PPS) Vehicle stuck barrier arm causing the barrier arm to break off and a cracked windshield on contractor's vehicle.	Transportation	(1) Driver did not follow proper procedures
7250	Richmond CA - Refinery	2/29/2011 3:17:00 PM	Closed	Loss	Gate 31	Contractor (PPS) Vehicle stuck barrier arm causing the barrier arm to break off and a cracked windshield on contractor's vehicle.	Equipment/Property Damage	(1) Driver did not follow proper procedures
7253	Richmond CA - Refinery	2/29/2011 7:00:00 AM	Closed	Near Loss	Tripping hazard created with public address system cords in IMPACT	The IMPACT units have public address systems with microphones. The mics are attached to the back of the IMPACT unit. The mics are attached to the back of the IMPACT unit. The mics are attached to the back of the IMPACT unit.	NI-Injury/Illness - Employee Injury	(1) Tripping Hazard, Cord
7253	Richmond CA - Refinery	2/29/2011 7:00:00 AM	Closed	Near Loss	Tripping hazard created with Public Address system cords in IMPACT	The IMPACT units have public address systems with microphones. The mics are attached to the back of the IMPACT unit. The mics are attached to the back of the IMPACT unit. The mics are attached to the back of the IMPACT unit.	NI-Injury/Illness - Contractor Injury	(1) Tripping Hazard, Cord
7321	Richmond CA - Refinery	2/6/2011 2:55:00 PM	Closed	Near Loss	Unable to inject Anti-oxidation for JPB run	At approx 7:55 PM breakers 12-704 and 12-710 opened in the Aky sub and caused the LCI VFD to trip. The back-up VFD engaged but the compressor RPM dropped. See Journal for details about alarms. Once breakers were reset, a second trip occurred and was reset. K-1420 suffered no additional issues the rest of the shift.	NI-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Root cause - Double contact electrical switch on a door interlock to high voltage compartment in LCI building failed. (2) Automatic reset switch on the Harmonic Filter Main Breaker (12-704) was left in the manual position after the S/D and required an operator to go up to the switchgear and manually close the breaker. This was not actually a root cause of the trip but did delay getting the machine back on line
7323	Richmond CA - Refinery	2/6/2011 2:00:00 PM	Closed	Near Loss	Unable to inject Anti-oxidation for JPB run	Day shift ask to start anti-oxidation injection. Operators unable to draw down or have any flow indication using P-285 (P-285A unavailable due to pin hole leak on down stream relief valve).	NI-Lessons Learned	
7327	Richmond CA - Refinery	2/7/2011 4:05:00 AM	Closed	Loss	Scraped finger	Wentrich - EE was going up the stairs towards the OX burners. EE slipped on a glove that had been left on a stair. EE grabbed for something to hold on to and scraped his right pinkie finger.	NI-Injury/Illness - Contractor Injury	(1) 360 Awareness
7327	Richmond CA - Refinery	2/7/2011 4:05:00 AM	Closed	Loss	Scraped finger	Wentrich - EE was going up the stairs towards the OX burners. EE slipped on a glove that had been left on a stair. EE grabbed for something to hold on to and scraped his right pinkie finger.	Injury/Illness	(1) 360 Awareness
7361	Richmond CA - Refinery	2/7/2011 8:15:00 AM	Closed	Loss	Operator sprayed with sulfuric acid while starting P-1481 Venturi Pump	Operator was sprayed with sulfuric acid and received a quarter sized acid burn to the back of his neck.	Loss of Consciousness	(1) Pump was not tagged in the field as inoperable. Operator did not recognize hazards from defective pump as identified in turnover. (2) Temporary MOC was extended from 2005 to 2011 with an HSE-only review. The hazards associated with this installation were not recognized through this review process. (3) No urgency to Repair/Improve Permanent Million Roy Pumps.
7361	Richmond CA - Refinery	2/7/2011 8:15:00 AM	Closed	Loss	Operator sprayed with sulfuric acid while starting P-1481 Venturi Pump	Operator was sprayed with sulfuric acid and received a quarter sized acid burn to the back of his neck.	Equipment/Property Damage	(1) Pump was not tagged in the field as inoperable. Operator did not recognize hazards from defective pump as identified in turnover. (2) Temporary MOC was extended from 2005 to 2011 with an HSE-only review. The hazards associated with this installation were not recognized through this review process. (3) No urgency to Repair/Improve Permanent Million Roy Pumps.
7361	Richmond CA - Refinery	2/7/2011 8:15:00 AM	Closed	Loss	Operator sprayed with sulfuric acid while starting P-1481 Venturi Pump	Operator was sprayed with sulfuric acid and received a quarter sized acid burn to the back of his neck.	Injury/Illness	(1) Pump was not tagged in the field as inoperable. Operator did not recognize hazards from defective pump as identified in turnover. (2) Temporary MOC was extended from 2005 to 2011 with an HSE-only review. The hazards associated with this installation were not recognized through this review process. (3) No urgency to Repair/Improve Permanent Million Roy Pumps.
7367	Richmond CA - Refinery	1/17/2011 12:00:00 AM	Closed	Near Loss	Overdue inspections	Required TML inspection points were missed by the required due date in Handium.	NI-Business Process Damage - Process	(1) When the scheduling tool was changed for CML's to be completed by the calendar year, the actual complete by date. Some of the short cycle CML's were missed.
7418	Richmond CA - Refinery	2/2/2011 2:00:00 PM	Closed	Near Loss	Green Card - Missing Handrail	North-east of the RVP Analyzer Building at #17 Pump Station, there is a stairway leading up the hill to an elevated landing. The left side handrail at this landing is missing. This has caused an extreme fall hazard.	NI-Equipment/Property Damage - General Liability	

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7416	Richmond, CA - Refinery	2/29/2011 2:00:00 PM	Closed	Near Loss	Green Card - Missing Handrail	North-east of the RVP Analyzer Building at #17 Pump Station, there is a stairway leading up the hill to an elevated landing. The left side handrail at this landing is missing. This has caused an extreme fall hazard.	NI-Injury/Illness - Employee Injury	
7416	Richmond, CA - Refinery	2/29/2011 2:00:00 PM	Closed	Near Loss	Green Card - Missing Handrail	North-east of the RVP Analyzer Building at #17 Pump Station, there is a stairway leading up the hill to an elevated landing. The left side handrail at this landing is missing. This has caused an extreme fall hazard.	NI-Injury/Illness - Contractor Injury	
7448	Richmond, CA - Refinery	2/28/2011 8:00:00 AM	Closed	Near Loss	We did not train the appropriate people in a timely manner on RI-9900 line machine on RI-9900 changes.	We did not train the appropriate people in a timely manner once the RI-9900 was updated in December 2010. 1. Why did "above" happen? When RI-9900 was revised we did not develop a training plan. 2. Why did "it" happen? RI owner has no written process to develop the plan and assign fingers to ensure the plan is developed and implemented. 3. Why did "it" happen? The need had not been perceived.	NI-Regulatory Compliance - Non Compliance	(1) RI owner has no written process to develop the plan and assign fingers to ensure the plan is developed and implemented.
7448	Richmond, CA - Refinery	2/27/2011 10:00:00 AM	Closed	Near Loss	Green Card--Charm barricades on platform between T-3104 and T-3105 damaged and no longer erect	The chain barricades in front of two valves are rusted and damaged. The chains are no longer long enough to provide a proper safe guard against someone falling. See Relyllyn for pictures.	NI-Equipment/Property Damage - General Liability	
7458	Richmond, CA - Refinery	2/28/2011 2:15:00 PM	Closed	Loss	Contract employee tripped on crane outigger	Contract employee walked cab of dist crane, walked to rear of crane and tripped and fell backwards. Employee complained of arm pain, but was seen by Occupational Health and released back to work. Employee was taken to Contract company Dr. for follow up evaluation and released to full duty with no restrictions.	Injury/Illness	(1) Complacency
7470	Richmond, CA - Refinery	2/28/2011 10:10:00 PM	Closed	Near Loss	Safe threat from inhaling dust from F-2301	Willeket - EE complains of a sore throat. EE inhaled dust from F-2301 while it was being blasted.	NI-Injury/Illness - Contractor Injury	
7497	Richmond, CA - Refinery	2/28/2011 6:45:00 AM	Closed	Near Loss	Spilled coffee on floor of men's bathroom created slipping hazard.	Upon entering the men's bathroom #125 at Central Maintenance, I noticed a large puddle of coffee on the floor that created a slipping hazard. No one else was in the bathroom at the time.	NI-Injury/Illness - Employee Injury	
7511	Richmond, CA - Refinery	2/28/2011 10:00:00 AM	Closed	Near Loss	Green Card--Delivery Procedures not Followed	Green Card--Contractors are signing for materials for the shutdown on Fri. Sat. & Sun. Paperwork does not get increased through Procurement per procedure. Vendors are not getting paid.	NI-Quality - Repaired Work Incorporated Not Sent	
7514	Richmond, CA - Refinery	2/28/2011 8:00:00 AM	Closed	Loss	E-330 safety lifted to grade	E-330 safety lifted to grade as designed.	Environmental	(1) Over pressured safety because equipment was not raised for up stream pressures.
7540	Richmond, CA - Refinery	2/29/2011 12:00:00 AM	Closed	Loss	P124B/Cyl cover gasket failure	While attempting to establish a dry out circulation loop for the C100 middle asphalt system P124B reciprocating pump blew out a cylinder gasket on the west end of the pump. We were using LCO (wash oil) as our circulation medium. The LCO sprayed out of the end of the pump toward the ground and splashed back onto an operators legs and boots. The operator was uninjured (two layers of protection). Approximate temperature of the LCO was 140 to 160 deg.	NI-Injury/Illness - Employee Injury	(1) SDS: Maintenance & Inspection: Surfaces were not repaired the last time pump was taken apart. (2) Sidelobe Recommendations and Corrective Actions: Design & Engineering : Gasket Used Was Wrong Material. Material is Abnormal Material to use for normal process but not during Abnormal Process Runs (Short-term Heavy product Runs). (3) Sidelobe Recommendations and Corrective Actions: Training and Procedures: Plug in Line Gauge. Previous pump/plant clean up was insufficient.
7540	Richmond, CA - Refinery	2/29/2011 12:00:00 AM	Closed	Loss	P124B/Cyl cover gasket failure	While attempting to establish a dry out circulation loop for the C100 middle asphalt system P124B reciprocating pump blew out a cylinder gasket on the west end of the pump. We were using LCO (wash oil) as our circulation medium. The LCO sprayed out of the end of the pump toward the ground and splashed back onto an operators legs and boots. The operator was uninjured (two layers of protection). Approximate temperature of the LCO was 140 to 160 deg.	Equipment/Property Damage	(1) SDS: Maintenance & Inspection: Surfaces were not repaired the last time pump was taken apart. (2) Sidelobe Recommendations and Corrective Actions: Design & Engineering : Gasket Used Was Wrong Material. Material is Abnormal Material to use for normal process but not during Abnormal Process Runs (Short-term Heavy product Runs). (3) Sidelobe Recommendations and Corrective Actions: Training and Procedures: Plug in Line Gauge. Previous pump/plant clean up was insufficient.
7542	Richmond, CA - Refinery	2/22/2011 12:00:00 AM	Closed	Near Loss	Improper Lock Out Tag Out of Electrical Equipment	Capital Project Construction was dismantling TX-221 in SISO Flare Gas Recovery Plant. This equipment belongs to Utilities and was not released to construction for dismantling. I discovered this partial equipment dismantling condition the morning, February 09, 2011 and it was not LOTO'd correctly for either a Utility equipment LOTO or a InPlant equipment LOTO.	NI-Operational Process/Procedure - Safety Systems	(1) K-300A shutdown due to trip of P-303 LCO pump. (2) SGS: Maintenance & Inspection: K-300A Shutdown. Low lube oil pressure alarm activated. Lube Oil get low viscosity got too high lube oil level. H2O contamination had caused the low viscosity. (3) SGS: Maintenance & Inspection: K-300A Shutdown. Low lube oil pressure alarm activated. Backup pump not available. TP303 out for repairs for several months. Problems with the governor. SGS: Personal Protective Factors: Based
7542	Richmond, CA - Refinery	2/22/2011 12:00:00 AM	Closed	Near Loss	Improper Lock Out Tag Out of Electrical Equipment	Capital Project Construction was dismantling TX-221 in SISO Flare Gas Recovery Plant. This equipment belongs to Utilities and was not released to construction for dismantling. I discovered this partial equipment dismantling condition the morning, February 09, 2011 and it was not LOTO'd correctly for either a Utility equipment LOTO or a InPlant equipment LOTO.	NI-Operational Process/Procedure - Safety Systems	(1) K-300A shutdown due to trip of P-303 LCO pump. (2) SGS: Maintenance & Inspection: K-300A Shutdown. Low lube oil pressure alarm activated. Lube Oil get low viscosity got too high lube oil level. H2O contamination had caused the low viscosity. (3) SGS: Maintenance & Inspection: K-300A Shutdown. Low lube oil pressure alarm activated. Backup pump not available. TP303 out for repairs for several months. Problems with the governor. SGS: Personal Protective Factors: Based

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7553	Refinery	AM	Closed	Loss	pressure.	pump shut down.	Down	on reliability records, P303A was deemed reliable
7603	Refinery	2/10/2011 CA - 3:45:00 AM	Closed	Loss	T-3128 overflowed with DMOP water for hydro testing	Filling T3128 for hydro test with DMOP water. Overflowed 3128 tank during hydro fill at DMOP	NL- Equipment/Property Damage - Equipment Damage	(1) The Separator Operator did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7653	Refinery	2/10/2011 CA - 3:45:00 AM	Closed	Loss	T-3128 overflowed with DMOP water for hydro testing	Filling T3128 for hydro test with DMOP water. Overflowed 3128 tank during hydro fill at DMOP	NL-Operational Process/Procedures - Safe Operating Limit (SOL) Exceeded	(1) The Separator Operator did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7663	Refinery	2/10/2011 CA - 3:45:00 AM	Closed	Loss	T-3128 overflowed with DMOP water for hydro testing	Filling T3128 for hydro test with DMOP water. Overflowed 3128 tank during hydro fill at DMOP	NL-Operational Process/Procedures - Safe Operating Limit (SOL) Exceeded	(1) The Separator Operator did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7526	Refinery	2/4/2011 CA - 10:00:00 AM	Closed	Loss	Green Card - Loss of 3 Points of Contact (anonymous report)	Green Card (anonymous report). While descending stairs in the Admin Building, pulled the sleeve of my coat back to look at watch. This caused reporter to not have 3 points of contact & could have missed a step	NL-Injury/Illness - Employee Injury	(1) The Separator Operator did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7731	Refinery	2/12/2011 CA - 1:45:00 AM	Closed	Loss	Driver slipped a bush with the truck mirror breaking the mirror	Driver clipped a bush with the truck mirror breaking the mirror	Equipment/Property Damage	(1) Person was driving sloppy and drifted to edge of road
7731	Refinery	2/12/2011 CA - 1:45:00 AM	Closed	Loss	Driver slipped a bush with the truck mirror breaking the mirror	Driver clipped a bush with the truck mirror breaking the mirror	Transportation	(1) Person was driving sloppy and drifted to edge of road
7708	Refinery	2/14/2011 CA - 12:00:00 PM	Closed	Loss	While performing pressure test on 2300 Plant at SRU, the pressure in #3 train gaged up to a psig. Operator's checked over the train to determine cause of pressure up and found water in C-2300. Operators then proceeded to drain the Column. Working with maintenance to ensure no more water in equipment upstream or downstream of C-2300.	Operational Process/Procedures	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.	
7780	Refinery	2/14/2011 CA - 4:00:00 AM	Closed	Loss	Damage to right side of vehicle	PPS employee side swiped a handrail causing damage down the side of his vehicle	Transportation	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7780	Refinery	2/14/2011 CA - 4:00:00 AM	Closed	Loss	Damage to right side of vehicle	PPS employee side swiped a handrail causing damage down the side of his vehicle	Equipment/Property Damage	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7681	Refinery	2/10/2011 CA - 12:30:00 PM	Closed	Loss	Green Card - Tip	Green Card - while walking from turnstile to 135 main, person caught toe on a wooden floorboard and the shoe slipped down main. The spot had previously been painted bright green, but the paint has worn off	NL-Injury/Illness - Contractor Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7681	Refinery	2/10/2011 CA - 12:30:00 PM	Closed	Loss	Green Card - Tip	Green Card - while walking from turnstile to 135 main, person caught toe on a wooden floorboard and the shoe slipped down main. The spot had previously been painted bright green, but the paint has worn off	NL-Injury/Illness - Employee Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7682	Refinery	2/9/2011 CA - 8:30:00 AM	Closed	Loss	Green Card - low pressure on portable eyewitness at Hunts	Green card - while walking from turnstile to 135 main, person caught toe on a wooden floorboard and the shoe slipped down main. The spot had previously been painted bright green, but the paint has worn off	NL-Injury/Illness - Contracted Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7682	Refinery	2/9/2011 CA - 8:30:00 AM	Closed	Loss	Green card - low pressure on portable eyewitness at Hunts	Green card - while walking from turnstile to 135 main, person caught toe on a wooden floorboard and the shoe slipped down main. The spot had previously been painted bright green, but the paint has worn off	NL-Injury/Illness - Employee Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7684	Refinery	2/8/2011 CA - 2:00:00 PM	Closed	Loss	Green card - almost tip	Green card - almost tip - corner of steel plate (jagged edge) turned up.	NL-Injury/Illness - Contracted Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7684	Refinery	2/8/2011 CA - 2:00:00 PM	Closed	Loss	Green card - almost tip	Green card - almost tip - corner of steel plate (jagged edge) turned up.	NL-Injury/Illness - Employee Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7694	Refinery	2/8/2011 CA - 2:00:00 PM	Closed	Loss	Green card - almost tip	Green card - almost tip - corner of steel plate (jagged edge) turned up.	NL-Injury/Illness - Contracted Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7694	Refinery	2/8/2011 CA - 2:00:00 PM	Closed	Loss	Green card - almost tip	Green card - almost tip - corner of steel plate (jagged edge) turned up.	NL-Injury/Illness - Employee Injury	(1) Supervisor did not check the tank level anytime during the shift. (2) Alarms and level indicators did not work as intended. (3) Communication and work direction were less than adequate. (4) No connection made between T-3921 level drop and the filling of T-3128.
7900	Refinery	2/15/2011 CA - 11:30:00 AM	Closed	Loss	Chacon EE stuck in elevator after it abruptly stopped	At 11:30 A.M. While working on TKN-reactor R-530 startup, an operator working on the reactor structure took the elevator down to ground level. About halfway down, the elevator became stuck and would not move. The operator attempted to manually bring the elevator down with no success. Plant protection was called and alerted a rescue. The elevator repair company was called to repair.	NL-Operational Process/Procedures - Safety Systems	(1) Elevator cables jumped pulley and caused elevator to stop

7800	Richmond, CA - Refinery	2/25/2011 11:30:00 AM	Closed	Near Loss	Chevron EE stuck in elevator after it abruptly stopped	Equipment/Property Damage - Equipment Damage	(1) Elevator cables jumped pulley and caused elevator to stop.
7911	Richmond, CA - Refinery	2/15/2011 3:00:00 PM	Closed	Near Loss	Employee reported particle in right eye	NL-Injury/Illness - Employee Injury	
7912	Richmond, CA - Refinery	2/14/2011 7:30:00 AM	Closed	Near Loss	Green Card - Computer Desk	NL-Injury/Illness - RSIMSD Discomfort	
7928	Richmond, CA - Refinery	2/15/2011 4:55:00 PM	Closed	Near Loss	Furnace area tip on SRU #3 tank during start-up	NL-Operational Process/Procedures - Safety Systems	(1) Communication gap between the work scheduler and the rope access technician FIVE WHY'S: 1. Rope access crew took the rope job request during the break - in front and back of the scheduled work they have for the day. 2. Why did "1" happen? The request came in as rope access work and they took initiative to do pre-planning and setting it up. 3. Why did "2" happen? The job requestor assigned the job as Rope Access work. 4. Why did "3" happen? The job requestor was not aware of the criteria for classifying a rope work.
7967	Richmond, CA - Refinery	2/10/2011 7:30:00 AM	Closed	Near Loss	Green Card: Rope access for inspection	NL-Lessons Learned	
7968	Richmond, CA - Refinery	2/11/2011 12:00:00 AM	Closed	Near Loss	Green Card: Finger pinch	NL-Injury/Illness - Employee Injury	(1) Extension handle was loose (as suggested) and allowed wheel and/or handle to come in contact with existing railing.
7982	Richmond, CA - Refinery	2/16/2011 1:30:00 AM	Closed	Near Loss	Western Drive approximately 1/2 mile traffic between Pointe at Lake at Gables 15 and 16.	Equipment/Property Damage	(1) Driver took vehicle out to make rounds in extremely bad weather that resulted in limited visibility.
7983	Richmond, CA - Refinery	2/16/2011 3:00:00 PM	Closed	Near Loss	Green Card - Gate at Megawatt & Cracking swinging open in wind	NL-Transportation - Contractor	
7986	Richmond, CA - Refinery	2/15/2011 3:00:00 PM	Closed	Near Loss	Green Card - Gate at Megawatt & Cracking swinging open in wind	NL-Transportation - Company	
7987	Richmond, CA - Refinery	2/16/2011 10:25:00 AM	Closed	Near Loss	EE pinch fingers while closing Sialar box	NL-Injury/Illness - Employee Injury	(1) EE not paying attention to hand placement
7987	Richmond, CA - Refinery	2/16/2011 10:25:00 AM	Closed	Near Loss	EE pinch fingers while closing Sialar box	Injury/Illness	(1) EE not paying attention to hand placement
8032	Richmond, CA - Refinery	2/17/2011 5:30:00 AM	Closed	Near Loss	Green Card - Driving Wrong Way on One Way Street	NL-Transportation - Contractor	
9041	Richmond, CA - Refinery	2/17/2011 8:00:00 AM	Closed	Near Loss	Tank field rd way approaching 1-1469 has eroded away to the point in certain areas that it has become dangerous for vehicles to drive on (200 ft. or more)	NL-Transportation - Company	(1) Why did car 1 pull out into oncoming vehicles? Disturbed by cars in the middle of the intersection. (2) Why did cars pull out into oncoming vehicles? Driver 1 said she was not aware there was a stop sign only in 1 direction. There is no

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8048	CA - Refinery	PM	Closed	Near Loss	my car heading north on Center St.	Monday, there was a 3 foot cone in the middle of the street marking a pothole. The driver said she was partly distracted by the cone	NL-Transportation - Company	sign reminding people that cross traffic from the right doesn't
8055	Richmond, CA - Refinery	2/17/2011 7:30:00 AM	Closed	Near Loss	Vehicle collision	Electrician #1 was on a partial RSC scissor lift (E-130) replacing a light from underneath the PCC to another cone of the job also under Electrician #2 as the scissor lift in front of the scissor lift. As they approached the UST waiting truck the estimated clearance between the scissor lift and the truck was 8-10". Electrician #1 pulled the lift forward and his intention was to clear the truck and turn left in front of the truck to avoid a ramp leading up to a building on his right. As he started forward the left front wheel of the scissor lift went into a depression in the asphalt as the right front wheel was going over a portion of the ramp leading to the building. The scissor lift at this point leaned over and came in contact with the wedding truck.	NL- Equipment/Property Damage - Equipment	
8065	Richmond CA - Refinery	2/17/2011 12:00:00 AM	Closed	Near Loss	Administrative - 2 day EPA Audit revealed Title 22 notification to DTSC of HW shipments to Canada not made as required	Shipments of Free Waste to foreign countries require notifications to federal EPA according to CFR 40. A similar requirement exists for Cal EPA - DTSC Title 22 Regs. These Cal EPA notifications were not being made.	NL-Regulatory Compliance - Non Compliance	
8085	Richmond, CA - Refinery	2/17/2011 12:00:00 AM	Closed	Loss	NDV received in the amount of \$1,500.00 from the USCG. The Richmond Spill Prevention and Emergency Response Plan (SPERP) was not submitted to the USCG for the required 5 year review in 2010 violating the requirements of Title 33 CFR Part 154.	A NOV was received in the amount of \$1,500.00 from the USCG. The Richmond Spill Prevention and Emergency Response Plan (SPERP) was not submitted to the USCG for the required 5 year review in 2010 violating the requirements of Title 33 CFR Part 154. The last five year review was completed in July 2005 by the USCG. The plan was due for another review in 2010 two months before the prior approval expiration date. This was not completed in violation of the requirements of Title 33 CFR Part 154. Two codes were violated: the first for failure to resubmit the plan for approval, and the second for operating without an approved plan.	Regulatory Compliance	(1) No Procedure/CAP Task was in place to ensure compliance. (2) Temporary ER coordinator was not formally trained and received a limited turnover.
8102	Richmond CA - Refinery	2/17/2011 6:25:00 PM	Closed	Loss	74L C551 indication flat line at 33%. The valve slowing opens up for 11 hours finally causing V-600 safety to lift. This caused a flaring event that lasted 20 minutes.	At 18:25, Hydroprocessing had a flaring incident. There was visible flaring from the North Isomax, South Isomax and FCC started for approximately 20 minutes. It was determined that 74L C551 had been giving a false indication since 08:00 this morning. The indication was stuck at around 33%, with a set point of 31%. LC551 output had been going open so the level could maintain the set point. The output started at around 43%, and by the time we had our event, was open to 68%. As the valve opened, V-550 started gassing out to V-560, which then sent a large flow to V-560. As V-560 pressured up, this kicked out V-560, which then over-pressured V-600 causing IX-600C to lift.	Environmental	(1) Plugged up displacer internals on LT551. (2) Operations did not immediately recognize that V-550 was gassing out to downstream equipment.
8103	Richmond CA - Refinery	2/17/2011 6:25:00 PM	Closed	Loss	During a flaring event, the North and South Isomax flare sample were not flared correctly. They were empty when QCID tried to run the GC samples. FCC sample was OK, so information from that sample was used to make calculation.	During a flaring event on both the North Isomax and South Isomax flares, the vent line on the sample bombs were in the open position causing the bomb to empty after the sample was done flaring. This was not noticed when the sample bomb was collected so there was not analysis done on the gases that were sent to the North and South Plant.	Regulatory Compliance	(1) Why was the vent valve on the Flare Sample bomb in the open position. Why confusing? Because there is no job aid to assist with sampling task or bomb setup. (2) Why was the vent valve on the Flare Sample bomb in the open position. Because the tags on the sample station are confusing.
8121	Richmond, CA - Refinery	2/10/2011 7:00:00 AM	Closed	Near Loss	GREEN CARD--Turn over	GREEN CARD--NDE Tech who was working non CUI Project doing an Open Vision (Free line Radiography) inspection was assigned to work on the shutdown. When he moved there was no proper hand-off of the work has started and no reports submitted to the ones he finished.	NL-Business Process - Business Process	(1) What Technician did not finalize inspection even though he was only partially complete prior to going to TA. 1. Why did "above" happen? Technician thought he would continue where he left off after the TA was completed. 2. Why did "1" happen? Past practice.
8143	Richmond, CA - Refinery	2/19/2011 12:00:00 AM	Closed	Near Loss	E-130 safety lifted	While making plant rounds Field Operator noticed E-130 safety lifting to sewer. System was in steady state operation lined up to line.	NL- Equipment/Property Damage - General Liability	(1) Incident Description: What E-130 safety FC-72 lifting on HCO system where location or where in the process? HCO product out of E-130 When: 2/18/11 1:50Z How: Problem Statement: (What is the key issue that needs to be addressed?): E-130 HCO system safety lifting from an over pressure situation FIVE WHY'S 1. Why did "above" happen? Verification Pressure in HCO system exceeded setpoint of FC-72 of 160 psig 2. Why did "1" happen? P-114A HCO product pumps dethroated of 340 psig 3. Why did "2" happen? P-114A redesign for unit upgrades to achieve more flow in HCO system but did not take into account higher system pressure which would result from the change 4. Why did "3" happen? Check valves closed from VMA-C process and did not achieve associated vacuum from VMA-C process 5. Cause of your incident? Changes were made to the system without effecting.
8175	Richmond CA - Refinery	2/19/2011 11:30:00 AM	Closed	Loss	#2 Castro fresh water header ruptured along Midway Street	#1 Castro fresh water line (4") developed an underground leak at the corner of Midway and Division St.. The leak was immediately isolated without any loss to users.	Equipment/Property Damage	(1) External corrosion - underground line

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8179	Richmond, CA - Refinery	2/19/2011	11:22:00	Closed	Near Loss	FCC flare seal pressure spike.	While trying to clean up C-1400 column we were steaming it to blow down per procedure when the FCC seal pressure spiked to 19.7"	NL-Environmental - Release	
8189	Richmond, CA - Refinery	2/20/2011	6:30:00	Closed	Near Loss	EE shipped and nearly hit while approaching gate 1261.	While crossing the wooden walkway on the south side of Hdg 136 Main EF shipped and nearly fell due to anti-skid being worn off and frost covering the ground	NL-Injury/Illness - Employee Injury	
8233	Richmond, CA - Refinery	2/20/2011	8:30:00	Closed	Near Loss	Green card - Gate came off hinge	Green card - Gate (located on Office Hill) came off hinge as I was opening it almost falling on me. I was able to move out of the way. This is the third time the gate has fallen. It was supposed to be repaired after the last incident 3 mos ago.	NL-Injury/Illness - Contractor Injury	
8233	Richmond, CA - Refinery	2/10/2011	9:30:00	Closed	Near Loss	Green card - Gate came off hinge	Green card - Gate (located on Office Hill) came off hinge as I was opening it almost falling on me. I was able to move out of the way. This is the third time the gate has fallen. It was supposed to be repaired after the last incident 3 mos ago.	NL-Injury/Illness - Employee Injury	
8235	Richmond, CA - Refinery	2/19/2011	12:00:00	Closed	Near Loss	76FV7309 was out of service to have an Accelerated Downstream Project upgrade performed but the timing of this work did not agree with Refinery Planning needs.	Missed opportunity to put Isomax Jet down the diesel tail line because 76FV7309 was at the shop to install new trim as part of an accelerated downstream project. Planning and the AEU had this week as the original planned date to make the shop repair but a followup email notification to delay the upgrade to this valve was not realized until after the valve was already at the shop. During this period refinery planning asked the AEU to place this valve in service and it was not available. Jet inventories were full and there was a need to send the Isomax Jet to the Diesel Tail Line.	NL-Business Process - Business Interruption	(1) SOS-Training & Procedures: Flow Valve 7309 Unavailable for Normal Routing of Jet. Valve was at Machine Shop. Communication to delay work not read. Delay request was sent late to concerned parties. Request was made only by one-way email. (2) Scheduler: SOS-Training & Procedures: There was a financial impact associated with this incident. (The work priority on the upgrade work was increased to a 1 priority and the valve work was immediately completed and installed on Friday, 2/18/2011.) Another cost was that of running Jet product through the diesel hydro-treater (DHT).
8235	Richmond, CA - Refinery	2/19/2011	12:00:00	Closed	Near Loss	76FV7309 was out of service to have an Accelerated Downstream Project upgrade performed but the timing of this work did not agree with Refinery Planning needs.	Missed opportunity to put Isomax Jet down the diesel tail line because 76FV7309 was at the shop to install new trim as part of an accelerated downstream project. Planning and the AEU had this week as the original planned date to make the shop repair but a followup email notification to delay the upgrade to this valve was not realized until after the valve was already at the shop. During this period refinery planning asked the AEU to place this valve in service and it was not available. Jet inventories were full and there was a need to send the Isomax Jet to the Diesel Tail Line.	NL-Quality - Latent Shipment	(1) SOS-Training & Procedures: Flow Valve 7309 Unavailable for Normal Routing of Jet. Valve was at Machine Shop. Communication to delay work not read. Delay request was sent late to concerned parties. Request was made only by one-way email. (2) Scheduler: SOS-Training & Procedures: There was a financial impact associated with this incident. (The work priority on the upgrade work was increased to a 1 priority and the valve work was immediately completed and installed on Friday, 2/18/2011.) Another cost was that of running Jet product through the diesel hydro-treater (DHT).
8263	Richmond, CA - Refinery	2/21/2011	11:00:00	Closed	Near Loss	Bin containing NON RCRX-seal was shipped out as "treated wood" but discovered prior to final destination.	Bin containing "NON RCRX" seal was shipped out as "Treated Wood" but discovered prior to final destination. Investigation to follow.	NL-Regulatory Compliance - Non Compliance	(1) Problem with bin contents not addressed and corrected when discovered.
8356	Richmond, CA - Refinery	2/14/2011	10:00:00	Closed	Loss	Sample Cooler/exchanger was lost.	Sample Cooler/exchanger was at the Wash Pad for cleaning and was lost.	NL-Environmental Property Damage	(1) Mechanic did not sign equipment into the log book at the wash pad.
8359	Richmond, CA - Refinery	2/15/2011	1:15:00	Closed	Near Loss	Green card - eye wash station located too far away from job site	Green card - Eye wash station located too far away from job site, nearest one exceeded 50' radio distance.	NL-Injury/Illness - Contractor Injury	
8359	Richmond, CA - Refinery	2/19/2011	11:15:00	Closed	Near Loss	Green card - eye wash station located too far away from job site	Green card - Eye wash station located too far away from job site, nearest one exceeded 50' radio distance.	NL-Injury/Illness - Employee Injury	
8432	Richmond, CA - Refinery	2/10/2011	12:00:00	Closed	Near Loss	Wash side ARP 30 failed	Call out from wash side ops. DMC shutdown, graphic call up very slow. ARP 30 failed in odd state.	NL-Business Process Interruption	
8433	Richmond, CA - Refinery	2/22/2011	7:00:00	Closed	Loss	Drawing and measure up for BDO piping on FCV-18309 in RLOP-18 was incorrect.	Measure up and a drawing for BDO piping on FCV-18309 RLOP-18 was completed 11/24/10 and fabricated in the boiler shop. The installation of the piping was placed on hold until an operational window occurred. The piping was verified the morning it was scheduled to be installed and was found to be inaccurate.	Quality	(1) Human error
8455	Richmond, CA - Refinery	2/15/2011	9:00:00	Closed	Near Loss	Flareman/gopher needs to be provided when vac trucks are backing into the tank block.	Green card - Vac trucks are required to back into the tank block which requires traffic to be blocked on Chennel in both directions. A flareman/gopher must be provided to stop/start traffic (location - 3128 tank).	NL-Injury/Illness - Contractor Injury	
8456	Richmond, CA - Refinery	2/17/2011	8:00:00	Closed	Near Loss	Green card - wooden fence/entry door swinging out of control.	Green card - wooden fence/entry door swinging out of control.	NL-Equipment/Property Damage	

8456	Richmond CA - Refinery	2/17/2011 AM	8:00:00	Closed	Near loss out of control	Green card - wooden fence/entry door swinging out of control.	NL-Injury/Illness - Contractor Injury	
8400	Richmond CA - Refinery	2/17/2011 AM	8:00:00	Closed	Near loss out of control	Green card - wooden fence/entry door swinging out of control.	NL-Injury/Illness - Employee Injury	
8545	Richmond CA - Refinery	2/24/2011 AM	8:30:00	Closed	Near loss out of control	Leak under Standard Rd. Leak 120 lb/hr and 678 lb/hr	NL-Environmental - Operational Leak	
8564	Richmond CA - Refinery	2/22/2011 AM	12:58:00	Closed	Near loss	False UPS critical alarm	NL- Equipment/Property Damage - General Liability	
8674	Richmond CA - Refinery	2/25/2011 AM	5:00:00	Closed	Loss	Main Gate Entrance	Equipment/Property Damage	(1) Gate was installed without a latch to secure it in the open position.
8674	Richmond CA - Refinery	2/25/2011 AM	5:00:00	Closed	Loss	Main Gate Entrance	Transportation	(1) Gate was installed without a latch to secure it in the open position.
8678	Richmond CA - Refinery	2/25/2011 PM	1:45:00	Closed	Near loss	Dead Tree fell onto power lines at T-990	NL-Business Process Interruption	(1) The jet was off track on flash because operator did not know that the DMC could cut temperature for high draft pressure. (2) The high draft pressure was due to furnace turning changes and not corrected in time.
8609	Richmond CA - Refinery	2/25/2011 AM	6:00:00	Closed	Near loss	Offgas JHT C-240 BTMS JHT Flash	NL-Quality - Product Quality (Yield)	(1) The jet was off track on flash because operator did not know that the DMC could cut temperature for high draft pressure. (2) The high draft pressure was due to furnace turning changes and not corrected in time.
8609	Richmond CA - Refinery	2/25/2011 AM	6:00:00	Closed	Near loss	Offgas JHT C-240 BTMS JHT Flash	NL- Equipment/Property Damage - Equipment	(1) The jet was off track on flash because operator did not know that the DMC could cut temperature for high draft pressure. (2) The high draft pressure was due to furnace turning changes and not corrected in time.
8749	Richmond CA - Refinery	2/28/2011 AM	12:00:00	Closed	Loss	ERD-K-2001 motor bearing failure resulting in ship loading delay	NL- Equipment/Property Damage	(1) SOS: Design & Engineering: Ship Loading Delayed 19 hours. No spare ERD or spare parts readily available. No contingency plan in place. (2) SOS: Maintenance & Inspection: Ship Loading Delayed 19 hours. ERD did not work. Bearings Failed. Scheduled Motor Vibrations Check was not done. Motor Was Not Running. Motor was not rechecked at the time. Motor was not started to perform the check.
8750	Richmond CA - Refinery	2/27/2011 PM	5:40:00	Closed	Near loss	* plant upset shipped water routed off test	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Operations manipulating the condensate system to mitigate a problem in another part of the plant. Backed out C-810 reboiler and caused an 8 plant upset. (2) SOS: Design & Engineering: No independent level control on E-917 reboiler. (3) SOS:Maintenance & Inspection: Soft Water Problems (Stuck Valves). (4) SOS: Training & Procedures: No Specific Guidelines on How to make moves.
8914	Richmond CA - Refinery	2/28/2011 AM	8:00:00	Closed	Loss	Loss of Compressor no loading	Business Process	(1) Not including SME prior to closure from old system to new system. Had the SME been involved in the closure we would have been aware of the possible fail-safe shutdown.
9014	Richmond CA - Refinery	3/1/2011 PM	6:21:00	Closed	Loss	Operator lifted and fell resulting in abrasions to forehead and both hands.	Injury/Illness	(1) The incident occurred because the employee did not maintain line of sight on the path he was walking. (2) The raised asphalt curb goes directly across the path. (3) This incident occurred because the employee did not maintain line of sight on the path he was walking.

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9018	Richmond CA - Refinery	3/16/2011 5:20:00 PM	Closed	Near Visible flame	Why not informed? Operator did not believe draining water to relief would effect flare gas recovery. Corrective actions- (1) Discuss need to inform flare recovery compressor operators when blowing down any material to relief. (2) Pretest K24202 to 50% each to quickly catch incidents instead of K242 100% when only 1 FGR machine was HIS	NL-Environmental - Release	(1) SOS: Training & Procedures: FCC Tolelizer tripped. Flow increase in the relief system. K1050 Couldn't keep up with this flow. sudden increase in flow. Only one compressor was running at the time. Board operator didn't realize the increase in flow was going to require the use of two compressors. Board operator had never experienced that situation before. (2) Sidebar SOS: Training & Procedures (investigations and Lessons Learned): There's a need for enhanced awareness on steps and alternative actions available during increases in FGR flow (checking configuration of K-1050/1070, etc) prior to known increases.
9022	Richmond CA - Refinery	3/16/2011 3:42:00 PM	Closed	Near Loss	Tipped FCC Tolelizer while making outside process moves to the relief system when only 1 FGR machine was HIS	NL-Environmental - Release	(1) Procedure not followed when removing Jolo - PRT can be remain isolated with pump in service. (2) Lolo was not audible to vary level to finish.
9069	Richmond CA - Refinery	3/22/2011 12:00:00 PM	Closed	Loss	K-501 EBV NZ valves tripped while locks cut off	Operational Process/Procedures	
9109	Richmond CA - Refinery	3/22/2011 10:00:00 PM	Closed	Near Loss	Chewon EE was attempting to extend loads from a large tool box, in order to avoid stressing their back. EE sat on the floor next to the tool box to remove the tools. When EE attempted to get up off the floor, EE noticed discomfort in their elbow while pushing themselves off of the lid of the closed tool box into a standing position.	NL-Injury/Illness - Employee Injury	
9122	Richmond CA - Refinery	3/17/2011 11:30:00 AM	Closed	Near Loss	HSS Bump Station not working.	NL- Equipment/Property Damage - General Liability	(1) SOS: Training & Procedures: Smoldering Fire in SP Hill. Sparks were falling onto debris flammables. Debris near (15' to 20' feet) hot work. It was not anticipated that sparks would travel that far from welding location. (2) SOS: Maintenance & Inspection: Potential Back Exposure to Workers. Water #1 Water Drain. Multiple Leaks Occurred from the Drainage at York Drain. Multiple Leaks Occurred from the Drainage at York Drain. Cause of Gasket Failure. (3) Sidebar: Issue, Training & Procedures - No radio could cause the supervisor had left to oversee other jobs. Cell phone used to make notifications
9161	Richmond CA - Refinery	3/22/2011 2:00:00 PM	Closed	Near Loss	EE complained of dizziness and irregular heart beat	NL-Injury/Illness - Employee Injury	
9169	Richmond CA - Refinery	3/23/2011 12:30:00 PM	Closed	Near Loss	Flange leak # 1 Water Draw	NL-Injury/Illness - Contractor Injury	(1) Damaged door why? Door was closed when driver pulled out why? Ramp raised up and damaged door why? Limit switch on dock adjustment is off why? Ramp needs to be aligned root cause: Alignment was off which caused ramp to raise when truck pulled away.
9217	Richmond CA - Refinery	2/28/2011 12:00:00 PM	Closed	Near Loss	AT RLP, Door 7 in warehouse was damaged.	Equipment/Property Damage	(1) Damaged door why? Door was closed when driver pulled out why? Ramp raised up and damaged door why? Limit switch on dock adjustment is off why? Ramp needs to be aligned root cause: Alignment was off which caused ramp to raise when truck pulled away.
9217	Richmond CA - Refinery	2/28/2011 12:00:00 PM	Closed	Near Loss	AT RLP, Door 7 in warehouse was damaged.	NL- Equipment/Property Damage - Equipment Damage	(1) Damaged door why? Door was closed when driver pulled out why? Ramp raised up and damaged door why? Limit switch on dock adjustment is off why? Ramp needs to be aligned root cause: Alignment was off which caused ramp to raise when truck pulled away.
9219	Richmond CA - Refinery	3/22/2011 11:03:00 AM	Closed	Near Loss	Green Card-Walking Hazards	NL-Injury/Illness - Employee Injury	
9260	Richmond CA - Refinery	3/22/2011 2:00:00 PM	Closed	Loss	Chewon EE stuck hand	Injury/Illness	(1) Failed to assess potential hazards while performing LPSSA
9270	Richmond CA - Refinery	3/24/2011 12:00:00 PM	Closed	Loss	UV Flame Detection Alarm Flood	Operational Process/Procedures	(1) Fire Protection System UV detection and system failure - end of line

9271	Richmond CA - Refinery	3/6/2011 AM	12:00:00	Closed	Loss	While starting up PSA mexxsa v-2073 while purging H2 to relief	2073 PSA module, to remove the nitrogen in preparation for feed in to v-2073. Outside operator cracked PSV bypass to relief. 3 Threeds to displace the H2 in the vessel. This is normally done so N2 is not displaced to K-1500. This could cause K-1500 to operate erratically, but is not in this procedure. At this same time, the OWS 2 was monitoring sagging H2 system pressures on all three stages, erratic draft ten position movement on K300 west that was causing amp override situations on the other three draft fans, troubleshoot K320 by switching loads with K520 which had to be started up and trying to get two valves to close on load three to relief was cracked open three to allow OWS2 draft to pass on load three to relief. The outside operator called to inform OWS2 that the H2O was cracked open and that the vessel pressure at valve opening the riser was faster than expected and the valve could not be put at 12%. OWS2 immediately called the AOC operator and told him to block in to relief, called the AOC operator and had him start the standby GGR compressor and called FCC HD and told them of the problem.	NL-Operational Process/Procedures - Safety Systems	
9290	Richmond CA - Refinery	3/4/2011 AM	10:00:00	Closed	Near Loss	K-300 suction and discharge piping	While removing piping on K-300 B mechanics noticed that one of the spools had a significant leak. The leak was significant and the leak was not repaired and that there was significant pipe strain on the compressor head. K-300 A has similar issues, there is a saddle on branch connection, and a leak seal clamp on it as well. K-300 A was reported to operations as a safety concern last year.	NL- Equipment/Property Damage - General Liability	
9290	Richmond CA - Refinery	3/4/2011 AM	10:00:00	Closed	Near Loss	K-300 suction and discharge piping	While removing piping on K-300 B mechanics noticed that one of the spools had a significant leak. The leak was significant and the leak was not repaired and that there was significant pipe strain on the compressor head. K-300 A has similar issues, there is a saddle on branch connection, and a leak seal clamp on it as well. K-300 A was reported to operations as a safety concern last year.	NL-Environmental - Release	
9290	Richmond CA - Refinery	3/4/2011 AM	10:00:00	Closed	Near Loss	K-300 suction and discharge piping	While removing piping on K-300 B mechanics noticed that one of the spools had a significant leak. The leak was significant and the leak was not repaired and that there was significant pipe strain on the compressor head. K-300 A has similar issues, there is a saddle on branch connection, and a leak seal clamp on it as well. K-300 A was reported to operations as a safety concern last year.	NL-Fire/Explosion	
9302	Richmond CA - Refinery	3/6/2011 PM	7:45:00	Closed	Loss	Contractor injured finger	Bigge: Contractor employee was installing a trolley on a beam purchased his finger when he put it in a keeper pin. Employee was wearing gloves at the time of the injury.	NL-Injury/Illness - Contractor Injury	(1) Improper locking pin, square ended cotter pins which cannot cause a purchase should have been used, (2) Pre use inspection not performed
9302	Richmond CA - Refinery	3/6/2011 PM	7:45:00	Closed	Loss	Contractor injured finger	Bigge: Contractor employee was installing a trolley on a beam purchased his finger when he put it in a keeper pin. Employee was wearing gloves at the time of the injury.	NL-Injury/Illness - Contractor Injury	(1) Improper locking pin, square ended cotter pins which cannot cause a purchase should have been used, (2) Pre use inspection not performed
9340	Richmond CA - Refinery	3/4/2011 AM	11:00:00	Closed	Near Loss	Green Card - Office Depot truck speeding	Green Card - Office Depot truck entered Main Gate and drove at least 30 mph on Standard Avenue (15 mph zone), the truck turned on Center Street and appeared to be going 20-25 mph in a 10 mph zone.	NL-Transportation - Contractor	
9360	Richmond CA - Refinery	3/4/2011 AM	11:00:00	Closed	Near Loss	Green Card - Airtel of Turnaround Sign-In Sheets	Green Card - Conducted an audit of the Plant Sign in sheets for the Impact green Card. Found that the documents used were not following the refinery standard. Further investigation showed that the documents were not in compliance. Discussion with most supervisors found they were unaware of the RI specific requirements.	NL-Business Process - Business Process	
9395	Richmond CA - Refinery	3/8/2011 AM	3:00:00	Closed	Loss	hot piece of slag landed on contractors face while welding	Contractor employee was welding on the doors on the upper deck of T-1000 when a hot piece of slag landed on his face between his safety glasses and his face respirator. Receiving a small burn on employees cheek.	NL-Injury/Illness - Contractor Injury	(1) Hot Slag
9395	Richmond CA - Refinery	3/8/2011 AM	3:00:00	Closed	Loss	hot piece of slag landed on contractors face while welding	Contractor employee was welding on the doors on the upper deck of T-1000 when a hot piece of slag landed on his face between his safety glasses and his face respirator. Receiving a small burn on employees cheek.	NL-Injury/Illness - Contractor Injury	(1) Hot Slag
9407	Richmond CA - Refinery	2/23/2011 AM	12:00:00	Closed	Near Loss	Ordered Ammonia Pct/Sulfide and order was delayed by one week creating an outage of use.	APS (ammonium poly sulfide) was delayed by the supplier because they did not receive their catalog price update prior to shipment and fail to communicate that information to the appropriate personnel at Chevron.	NL-Business Process Interruption	(1) Due to personal changes with the responsible parties supplier catalog information was not updated in a timely fashion, (2) Supplier fail to inform Chevron of their intentions resulting in product shipment delay.
9407	Richmond CA - Refinery	2/23/2011 AM	12:00:00	Closed	Near Loss	Ordered Ammonia Pct/Sulfide and order was delayed by one week creating an outage of use.	APS (ammonium poly sulfide) was delayed by the supplier because they did not receive their catalog price update prior to shipment and fail to communicate that information to the appropriate personnel at Chevron.	NL-Business Process Interruption	(1) Due to personal changes with the responsible parties supplier catalog information was not updated in a timely fashion, (2) Supplier fail to inform Chevron of their intentions resulting in product shipment delay.
						Sgt. Avila was exiting the door that was located on the outboard side of the			

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9411	Richmond CA - Refinery	3/6/2011 8:50:00 PM	Closed	Loss	Main Gate	Guard attack at the end of this shift. Sgt. Avila had both hands full with his personal belongings and attempted to kick the door open with his foot. His foot struck the lower glass panel of the door and put a spider web crack on the glass. The glass on the door is still in tact but will need to be replaced.	Equipment/Property Damage	(1) Officer attempted to kick open door to exit with hands full. His foot struck the glass in the door and caused large spider cracks in it.
9519	Richmond CA - Refinery	3/2/2011 2:00:00 PM	Closed	Near Loss	The use of erroneous data which could have resulted in significant loss in time and money.	The use of erroneous data which could have resulted in significant loss in time and money. The data pulled from the database was incorrect based on a coding in the database. Data was not fully deleted and then re-entered causing duplicate data to build and caused balances to be reported erroneously.	NL-Business Process - Business Process	
9537	Richmond CA - Refinery	3/6/2011 3:00:00 PM	Closed	Loss	For relief header leak	Order complaint detected to be relief gas header. Out of service MOV on old 10 inch jumper line developed a leak.	NL-Environmental - Release	(1) Valve body corroded through as a result of pocketed liquid in a static line. (2) Dead leg was created when valve was left in the closed position for several years resulting in failure due to long term exposure to accumulated process liquid.
9537	Richmond CA - Refinery	3/9/2011 3:00:00 PM	Closed	Loss	For relief header leak	Order complaint detected to be relief gas header. Out of service MOV on old 10 inch jumper line developed a leak.	Environmental	(1) Valve body corroded through as a result of pocketed liquid in a static line. (2) Dead leg was created when valve was left in the closed position for several years resulting in failure due to long term exposure to accumulated process liquid.
9554	Richmond CA - Refinery	3/9/2011 7:42:00 PM	Closed	Near Loss	18 plant upset noted	On 3/9/2011 at 7:42 PM the OWS6 BLOC operator noticed the flow of P-1820 reflux pump was dropping off rapidly. The outside operator was dispatched to the plant and noticed the pump discharge was less than normal. He switched pumps and noticed the pressure return to normal at the same time the OWS 6 noticed flow returning to normal. A pressure bounce occurred though out the plant because of this upset. C-1820 bottoms temp dropped below 308 degrees so the decision was made to raise the stripped water of test and wait until morning for a good test result to route back on test.	NL-Quality - Incorrect Product	
9577	Richmond CA - Refinery	3/28/2011 5:30:00 AM	Closed	Near Loss	Green Card-Parking and Lighting issues at S1 Gate	Green Card-The lines for parking stalls is worn off and unable to distinguish where the spots are. The parking lot is also very dark due to the fact that there are no lights. The stripes the lot and inside street lights.	NL-Injury/Illness - Contractor Injury	
9595	Richmond CA - Refinery	3/10/2011 7:00:00 AM	Closed	Loss	V-1413 udder/deadman valve failure.	Increased flow to relief gas header. Traced flow to be from V-466. Then hydrocarbon to go to the relief drum.	Environmental	(1) V-1413 deadman valve had spring
9597	Richmond CA - Refinery	3/8/2011 2:20:00 PM	Closed	Near Loss	Stove back	Employee stated his mid-back felt sore after working throughout the day. There was no event or incident that contributed to an injury. EE used LPSA to pause work to avoid injury. Came in next day and reported feeling 100%.	NL-Injury/Illness - Contractor Injury	
9640	Richmond CA - Refinery	3/10/2011 12:00:00 AM	Closed	Loss	Operator stayed with chemical	While performing a Lab procedure, a QC operator was sprayed with Bromine Titration Solvent on the chest and possibly some into the eyes.	NL-Injury/Illness - Employee Injury	(1) Equipment failure
9645	Richmond CA - Refinery	3/9/2011 12:00:00 AM	Closed	Near Loss	K-1060 Failed to start.	During a Firing event on 3/9 Isomax operations were instructed to start the second flare gas compressor (K-1060). K-1060 would not start.	NL- Equipment/Property Damage - General Hazard	(1) Water jacket system pressure low because bypass is stuck open
9653	Richmond CA - Refinery	3/10/2011 3:00:00 PM	Closed	Near Loss	Green Card-Loose boards and missing hand rail near 95F1993 flow meter	Green Card-Wooden walk way on Midway St by 95F1993 flow meter has loose boards and missing hand rail.	NL-Injury/Illness - Employee Injury	
9724	Richmond CA - Refinery	3/13/2011 4:36:00 PM	Closed	Loss	K3550 S/D	K3550 S/D and caused the furnaces to trip.	NL-Operational Procedures - Safety Systems	(1) SOS: Warning Device: No vibration monitor in place at the base for K-3550. (2) SOS: Maintenance & Inspections: To be Determined. Troubleshooting Efforts Continue
9744	Richmond CA - Refinery	3/11/2011 6:45:00 AM	Closed	Near Loss	Green Card - Potential MVC on public road	Green Card - A Biggie Crane work truck in the turning lane for I-580 East swerved into the right lane as the light turned green. He cut me off at the intersection. For some unknown reason he stopped in the road and proceeded to reverse his truck. Apparently unaware I and several other cars were directly behind him (with nowhere to go). I beeped my horn to catch his attention. He stopped before impacting me, changed directions and then proceeded down E. Standard Ave to Castro Street and eventually turned in headed toward 91 Ga.	NL-Transportation - Company	
9744	Richmond CA - Refinery	3/11/2011 6:45:00 AM	Closed	Near Loss	Green Card - Potential MVC on public road	Green Card - A Biggie Crane work truck in the turning lane for I-580 East swerved into the right lane as the light turned green. He cut me off at the intersection. For some unknown reason he stopped in the road and proceeded to reverse his truck. Apparently unaware I and several other cars were directly behind him (with nowhere to go). I beeped my horn to catch his attention. He stopped before impacting me, changed directions and then proceeded down E. Standard Ave to Castro Street and eventually turned in headed toward 91 Ga.	NL-Transportation - Contractor	(1) Lack of communication due to normal aspects of shift. Discussed with the team these issues in post shift debriefing, as well as the discussed how to be aware of these issues in the future
9777	Richmond CA - Refinery	3/14/2011 12:00:00 AM	Closed	Loss	Roiled left ankle Bird strike on Ortho feeder	Firefighter was advancing hose in Project 81 / ship structure when the hose pinched his left ankle against the wall, causing a minor sprain.	Injury/Illness	

9806	Richmond CA - Refinery	3/14/2011 8:00:00 PM	Closed	Near Loss	opened breaker 12-248 causing a power outage at B&P and Hantley Street.	There was also a voltage dip on Chem and Xylene street feeders causing equipment at the RARE plant to trip off line. The RARE plant auto started with no impact to the Refinery.	NL-Business Process - Business Interruption	
9820	Richmond CA - Refinery	3/14/2011 12:06:00 AM	Closed	Near Loss	Green Card - Fire extinguishers out of compliance	Green Card - 8 of 9 fire extinguishers in the central maintenance building have passed the date of the previous yearly inspection (3-1-10) and are now considered expired. All fire extinguishers appear to otherwise be in good working order. Need to schedule replacements ahead of time.	NL- Equipment/Property Damage - General Liability	
9826	Richmond CA - Refinery	3/15/2011 6:26:00 AM	Closed	Near Loss	Green card - non-company truck was driving down the wrong side of the road by Near 31 gate due to poor lighting	Green card - While driving in from Gate 31 on Channel St., I observed a non company truck driving in the middle of the road. I then proceeded to alert them that they were in the wrong lane by making my lights and honking and they then moved into the other lane now facing the wrong direction completely. Immediately later, the driver finally realized they were in the wrong lane when oncoming traffic was seen ahead coming at them.	NL-Injury/Illness - Contractor Injury	
9936	Richmond CA - Refinery	3/15/2011 8:25:00 AM	Closed	Near Loss	Green card - non-company truck was driving down the wrong side of the road by Near 31 gate due to poor lighting	Green card - While driving in from Gate 31 on Channel St., I observed a non company pickup truck driving in the middle of the road. I then proceeded to alert them that they were in the lane by making my lights and honking and they then moved into the other lane now facing the wrong direction completely. Immediately later, the driver finally realized they were in the wrong lane when oncoming traffic was seen ahead coming at them.	NL-Injury/Illness - Employee Injury	
9944	Richmond CA - Refinery	3/15/2011 12:00:00 AM	Closed	Near Loss	Report not marked Business Confidential	It was discovered that Fire Cause Analysis reports submitted to the Air District by Bay Area refinery are routinely requested by and sent to outside organizations. A recently submitted report included a drawing that was not marked Confidential Business Information (CBI). It is not known whether the drawing was submitted to the copy that was released. Future reports needs to be reviewed for CBI before sending.	NL-Security - Information Protection Loss - Other	
9946	Richmond CA - Refinery	3/15/2011 12:00:00 AM	Closed	Near Loss	Report not marked Business Confidential	A compliance report was prepared and submitted to a supervisor for signature. On review, it was discovered that the report included an attachment that had been run for the wrong time period. It was after hours, and the responsible individuals were on Friday's off or sick, so the attachment could not be run for several days. The cover letter and postage had to be re-done, causing unnecessary rework and submittal at the last minute.	NL-Regulatory Compliance - Non Compliance - Air	(1) Not having a schedule for development and review of the MACT 1 Report. (2) Regulatory requirements are not clearly understood.
9957	Richmond CA - Refinery	3/16/2011 11:06:00 AM	Closed	Near Loss	#3 boiler running in manual mode was attempted to put in auto mode	On 3/16/11 @ 11:00, #3 Power Plant's boiler operators were attempting to put #3 boiler on auto control mode. Boiler was lined up (PV vs. Spd) ready to put forced draft/gas boiler master controllers back into the auto position from manual. As soon as fuel and forced draft Moore controllers were set to the auto position, the air controller closed off and the fuel controller opened up, at that point we put boiler back into the manual position, and brought boiler back under control. No smoke alarms. No NOX exceedances happened during this boiler upset. #3 boiler stabilized by 11:20. No steam loss upset during this boiler upset. Operators did not realize they were already at low loads picked up the boiler speed. The boiler is still capable of full load of 105 MMBtu. Incident. The boiler is still capable of full load of 105 MMBtu.	NL-Operational Process/Procedures - Plant Run Out/Stop Down	(1) O2 Trim controller was closed
9970	Richmond CA - Refinery	3/15/2011 6:00:00 PM	Closed	Near Loss	K-920 Discharge Bottle ORJ Flange Leak Found During N2 Pressure Test	Green Card - When smoking at bus stop, this is not a designated smoking post. Location: Bus stop @ main and C-200.	NL-Transportation - Contractor	(1) 1. Why did 'above' happen? Because the ORJ flange gasket did not properly seal after torque procedure. 2. Why did '1' happen? Because the gasket was reused. 3. Why did '2' happen? Because it is common practice to inspect and reuse if no visual defects are found on the sealing surfaces of the gasket after VT (visual inspection). 4. Why did '3' happen? Fast use and installation experience established that the reuse of these ORJ gaskets has not presented any loss or issues. 5. Why did '4' happen? Above standard was not followed and/or the standard needs to be modified...
9972	Richmond CA - Refinery	3/16/2011 2:40:00 AM	Closed	Near Loss	Green Card - Improper equipment and rigging personnel used to fit pipe spool	Green Card - While using a telescoping forklift to set a 3" pipe spool on top tier of rack, pipe was open ended with no caps, became sheared over scaffold vertical pole while being lowered into place at C-1850 New Lub oil pipe rack. Need to use proper equipment and rigging person. Need to leave caps in place to prevent open-end entry of obstacles.	NL- Equipment/Property Damage - General Liability	(1) Bus stop looks like a smoking post and there is no No Smoking Sign hung in attack.

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10084	Richmond, CA - Refinery	3/17/2011 9:00:00 PM	Closed	Loss	V-1404, Seal Of Pol. overfilled	Operational Process/Procedures	(1) Why did V-1404 over fill. Because fill line was left open unintended. Why was the fill line left open unintended. Because operator was not trained to not leave vessel with fill line open. Why was operator not trained to not leave vessel when filling. Because other operators have been doing this and the vessel has not been overfilled.
10125	Richmond, CA - Refinery	3/16/2011 10:00:00 AM	Closed	Near Loss	Green Card - Near use of company credit card for personal business	NL-Business Process - Business Process	
10148	Richmond, CA - Refinery	3/19/2011 7:00:00 AM	Closed	Near Loss	operator found dent in truck door access from door jam	NL-Equipment/Property Damage - Equipment Damage	
10152	Richmond, CA - Refinery	3/19/2011 8:50:00 PM	Closed	Near Loss	Xylene Feeder 12-244 breaker opened	NL-Business Process - Business Process	
10181	Richmond, CA - Refinery	3/19/2011 10:37:00 PM	Closed	Near Loss	TKN F-510 Furnace inlet TT effected by rain down pour	NL-Operational Process/Procedures - Safety Systems	
10220	Richmond, CA - Refinery	3/20/2011 10:00:00 PM	Closed	Near Loss	Green Card - Roof Drain plugged by entry door	NL-Injury/Illness - Employee Injury	
10236	Richmond, CA - Refinery	3/19/2011 12:00:00 AM	Closed	Near Loss	Signal interruption from Radio Controller to Centra Com	NL-Operational Process/Procedures - Safety Systems	
10238	Richmond, CA - Refinery	3/21/2011 12:00:00 AM	Closed	Near Loss	Radio Communication between portistas unreliable at 5am - 5:15am	NL-Business Process - Business Process	
10279	Richmond, CA - Refinery	3/21/2011 4:00:00 PM	Closed	Loss	EE taken to the clinic for evaluation. EE sat down and felt back pain, may be an existing non work related injury, more to come.	Injury/Illness	(1) Pre existing condition- back problem.
10283	Richmond, CA - Refinery	3/18/2011 7:00:00 PM	Closed	Loss	BAPL STD during electrical storm	Operational Process/Procedures	(1) The training material (EOD4) is less than adequate to meet the requirement, since it does not include any description on how the BAPL is powered.
10322	Richmond, CA - Refinery	3/21/2011 8:00:00 AM	Closed	Near Loss	Green Card-Missing	NL-Injury/Illness - Contractor Injury	(1) When mud slide was fixed with rock to hold back hill, it was felt that that time replacing the covering on wood drain box with galvanized sheet piling would not be cost effective with out replacing box. EOD did not have the money
10334	Richmond, CA - Refinery	3/22/2011 7:00:00 AM	Closed	Loss	Van backed into car @ Kinder-Morgan.	Equipment/Property Damage	(1) Driver did not see vehicle behind him. He admitted that he could have looked over his shoulder instead of using the mirrors. If he had looked over his shoulder he would have avoided the collision. Using the mirrors forced him to look from one side to the other, adding to the opportunity to miss an obstacle.
10357	Richmond, CA - Refinery	3/22/2011 10:45:00 AM	Closed	Loss	Back into trailer denting the passenger side panel on the truck.	Transportation	(1) Did not walk to the back of the vehicle to identify if there were any hazards.
10389	Richmond, CA - Refinery	3/22/2011 8:00:00 AM	Closed	Loss	EMPLOYEE HIT WATER VALVE WITH MANLIFT	Equipment/Property Damage	(1) NOT BEING AWARE OF SURROUNDINGS

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10415	Richmond, CA - Refinery	3/14/2011 12:00:00	PM	Closed	Near Green Card--Personnel Working on Pipes in Overhead Pipe Rack	Green Card--Short service employee was working in pipe rack at RI-OP. Person was standing on pipe. He was using same pipe to use as an anchor point. Anchor point was not sufficient size according to RI-380 Section 6.7.3. (Need to have all employees that work in elevated conditions know all requirements before putting themselves at risk. More training for these individuals)	ML-Injury/Illness - Contractor Injury	(1) SOS: Training & Procedures: SSE (Short Service Employee) Working on 2" Pipe in Pipe Way. Did not recognize risky position. Did not recall training for fall protection requirements. No experience working in refinery (first day on job). SSE's (Green Card Inertio) did not stop SSE. Did not recognize risky position of employee. Did not recall training for fall protection requirements.
10419	Richmond, CA - Refinery	3/22/2011 10:00:00	PM	Closed	Near Richmond unable to supply commitments on LSVGO to El Segundo (twice)	1. Richmond committed to being able to supply W2208 via TK3196 to El Segundo. Stealing was determined to new work when trying to implement and was not able to produce ship segregated product as planned. 2. Richmond planned to ship 60 MB of LSVGO from TK3196 of imported gasoil. Tank heater was broken and tank temperature was approaching 81F pour point (actual temperature was 80F) and did not have 20F DT required to ship gasoil. Three VFDs shutdown going on.	ML-Business Process - Business Interruption	(1) Not enough communication around priority on low tank temperature.
10419	Richmond, CA - Refinery	3/22/2011 10:00:00	PM	Closed	Near Richmond unable to supply commitments on LSVGO to El Segundo (twice)	1. Richmond committed to being able to supply W2208 via TK3196 to El Segundo. Stealing was determined to new work when trying to implement and was not able to produce ship segregated product as planned. 2. Richmond planned to ship 60 MB of LSVGO from TK3196 of imported gasoil. Tank heater was broken and tank temperature was approaching 81F pour point (actual temperature was 80F) and did not have 20F DT required to ship gasoil. Three VFDs shutdown going on.	ML-Business Process - Abnormal Supply Occurrence	(1) Not enough communication around priority on low tank temperature.
10419	Richmond, CA - Refinery	3/22/2011 10:00:00	PM	Closed	Near Richmond unable to supply commitments on LSVGO to El Segundo (twice)	1. Richmond committed to being able to supply W2208 via TK3196 to El Segundo. Stealing was determined to new work when trying to implement and was not able to produce ship segregated product as planned. 2. Richmond planned to ship 60 MB of LSVGO from TK3196 of imported gasoil. Tank heater was broken and tank temperature was approaching 81F pour point (actual temperature was 80F) and did not have 20F DT required to ship gasoil. Three VFDs shutdown going on.	ML-Business Process - Business Process	(1) Not enough communication around priority on low tank temperature.
10468	Richmond, CA - Refinery	3/23/2011 8:45:00	AM	Closed	Small jet spill to Bay when bleeder left open on pump at Wharf	At 09:45, Chevron employee saw oil in water near Wharf lab and immediately notified the Wharf Safety Operator who found a suction pump running with it's discharge bleeder open spraying jet fuel into the drain line running to the steel sump. He checked in the bleeder and notified the Wharf HO. The sump backfilled up to a high level and then backflowed the another drain line into the surrounding park area below the walkway grating. The drain normally catches rain water and usually drains in the storm area sump. The drain had some phloble leaks and allowed 1" turned off per local to drip through to the bay water below.	Environmental	(1) The Wharf Lab Operator left the area with P-2 running and the bleeder open. (2) The integrity of the Lab Pad Onp Pen was found to be compromised. (3) The drain line from the wharf/lab pad to the sump was plugged with foreign objects.
10502	Richmond, CA - Refinery	3/23/2011 12:00:00	PM	Closed	Loss	During the oil spill response on 23 March, two work boats look on water and submerged in the bay with 3 responders entering the water. A rescue workboat with two responders also submerged after coming to aid the first boat. 5 personnel in total entered the water. All personnel were rescued using the larger Hudson response boat. All personnel were checked by EMTs. The Command Post again transferred to the clinic for evaluation. There were no injuries to report. BDN boats were recovered.	ML-Injury/Illness - Contractor Injury	(1) No Training or procedures in place. (2) Boat Design Inadequate for Application. (3) Boat Design Inadequate for Application.
Richmond	3/23/2011							(1) No Training or procedures in place. (2) Boat Design

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10608	Richmond, CA - Refinery	3/26/2011 8:55:00 PM	Closed	Near Loss	Loss of K-303 instrument air compressor	Operations responded to loss of instrument air compressor K-303. Compressor shut down on high vibrations for reasons unknown.	NI-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Suspected Water in the MS valve actuator caused valve to seize
10609	Richmond, CA - Refinery	3/26/2011 6:40:00 AM	Closed	Loss	Operator sprayed with Fuel Oil	While attempting to sample P-2 Discharge the operator was sprayed with heavy vis fuel oil.	Environmental	(1) Sample drain line was plugged with resin which caused a high pressure condition which ruptured. (2) SOS:Design & Engineering: Operator Sprayed with Oil. Sample Burped Out of Funnel. Water in the line came in contact with heat on steam traced line and expanded (ruptured) along with hot SDA. Funnel Drain Line Plugged. There are restrictions in the line (p-jumps). (3) Design & Engineering (Design or Process): - Corrosion Verification and Validation process for completed closed out work orders to ensure correct mitigation or solution steps were taken in place. (4) Training: - Emergency Response Team (ERT) Drills. (5) Investigation and Response Training: - Decision making or clean up of the operator took approximately 5 to 6 hours in part due to available material did not remove oil (Joy dish washing soap and LAVA soap). Immediate operator decon efforts by Emergency Responders did not prove efficient in removing the SDA from the skin. Once operator was transported to the refinery clinic, SDA was removed more rapidly with a different material (Dawn).
10694	Richmond, CA - Refinery	3/10/2011 11:15:00 AM	Closed	Near Loss	Green Card - Wrong Turn Behind Catalina Onb 8 One-Way Street	Green Card - A green card that was traveling south on Center Street made a right turn onto a one-way street that runs in the opposite direction.	NI-Injury/Illness - Contractor	
10697	Richmond, CA - Refinery	3/23/2011 12:00:00 AM	Closed	Near Loss	Green card - (Trench located on Standard Ave.) started to cave in taking adjacent surface area with it.	Green card - Trench (located on Standard Ave.) started to cave in taking adjacent surface area with it.	NI-Injury/Illness - Contractor Injury	
10697	Richmond, CA - Refinery	3/23/2011 12:00:00 AM	Closed	Near Loss	Green card - (Trench located on Standard Ave.) started to cave in taking adjacent surface area with it.	Green card - Trench (located on Standard Ave.) started to cave in taking adjacent surface area with it.	NI-Injury/Illness - Employee Injury	
10744	Richmond, CA - Refinery	3/28/2011 8:30:00 AM	Closed	Near Loss	Open wrong breaker in lighting panel, shut down compressor	Employee set up Fabrication Table and equipment, used power from local receptacle and began activities. One employee needed additional electrical cord and added a Y-splitter to GFCI and bypassed out additional extension cord to task area. When the attempt to use power tool he did not have power. Other employee lost power to his tool as well. Employees disconnected added cord and splitter and attempted to power tool at the GFCI without success. GFCI would not reset. Employees then investigated breakers in the lighting panel, no visible fuses were seen. Employees checked the receptacle number and corresponding breaker and attempted a reset to breaker with no results, still no power to GFCI adapter. Employees then plugged into another receptacle with number, which was LP-1 and went to Lighting panel. At the time employee had checked panel schedule and read circuit identification then went to corresponding circuit breaker, Circuit 1, employee turned off Circuit 1 and then realized that Circuits 1,3 and 5 were Main Circuit Breakers. Employee notified Operations who happen to be there at the time and Operations took care of resetting Circuit.	NI-Lessons Learned	
10781	Richmond, CA - Refinery	3/28/2011 3:30:00 AM	Closed	Loss	Two jet routed off test due to oil spec on flash and freeze	On the night of 3/28 operations noticed C-730 bottoms was full and began to make moves on the top to dry it up and get level on control. First jet samples where a -42 freeze Spec -40 and a 100 flash spec of 105. CO3 made move to turn the jet by cutting draw 300BBL/S. Through the night freeze and flash continued to move in the wrong direction. At 3:30AM after the 3rd off test sample (102 flash and -38 freeze)and many moves on the jet draw 310BBL/S total and no reactor CMT to control C-730 W. 100 jet was routed off test and BCS it in the process of running a jet tank sample.	Quality	(1) Impact feed 80% point increased causing two jet flash and freeze to go off test
10959	Richmond, CA - Refinery	2/15/2011 12:00:00 AM	Closed	Near Loss	Battery failure on 63PLCO2 for K330K940 booster compressors alarms	In doing a survey of the RIES So. Isamax DTH network, it was discovered that the battery fault light was on for 63PLCO2.	NI-Business Process - Business Process	(1) What: PLC battery found in failed state Why: Suspect battery had been in service for some time and not replaced Why: No work process in place to proactively replace PLC batteries
11003	Richmond, CA - Refinery	3/30/2011 11:45:00 AM	Closed	Loss	MVC	Contractor Employee was backing his truck up from work site at Berni 1. Not visible and he backed into the passenger side of vehicle. No one was hurt.	NI-Equipment/Property Damage	(1) Employee not aware of surroundings, did not conduct a 360 awareness.

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11023	CA - Refinery	11:45:00 AM	Closed	Loss	MVC	noticing that another employee had packed behind him. The truck was not visible and he backed into the passenger side of vehicle. No one was hurt.	Damage - General Liability	(1) Employee not aware of surroundings did not conduct a 360 awareness.
11004	Richmond, CA - Refinery	1/17/2011 12:00:00	Closed	Near miss	Delay of ordering TK-550 replacement blades for an emergency repair	Contract employees was securing equipment to finished truck with recital style tie down. The employee was contacting the employee on the front truck. Impact resulted in a shipped truck.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Lack of knowledge/governing about writing VRS for parts ordering only. (2) Inconsistency in past situations and in different ABIs with both RER and technical OAs in regards managing projects and ordering for large equipment repairs that will be completed on the run
11009	Richmond, CA - Refinery	3/30/2011 10:00:50 AM	Closed	Loss	Crippled room	K-930 has a shutdown VOC that will expire at the end of the day on Sunday, 4/6/11. This VOC point monitors the packing vents from the compressor cylinders. These VOC leaks have historically been placed on the shutdown repair list and due in 5 years. Beginning in January, attempts have been made to repair all booster packing leaks within and between regular H2 booster maintenance windows, as all booster compressor SDO VOCs are coming due in 2011-13. K-930 packing VOC leak, however, is still drifting above the 500 ppm limit (limited on 328 at 4000ppm). K-940 is currently unavailable due to maintenance, and should it not return to service before K-930 must be shut down to repair VOC leaks, the North Yard must cut around 30 MMSCFD H2 consumption	Injury/Illness	(1) Plant rates almost impacted due to K-930 VOC deadline for repair and K-940 ongoing maintenance. 1. K-940 shut down unexpectedly the same week that K-930 was scheduled for maintenance, delaying the K-930 repair by 1 week. 2. K-930 VOC leak repair was not repaired in a timely manner ahead of the next 5 year report deadline during routine maintenance windows. Repairs were scheduled over 1 week before the VOC due date and did not allow sufficient time to allow for unanticipated additional compressor repairs. 3. Operations did not understand the need to shut down K-930 it was not realized by the deadline in order to avoid a sustained event and permit violation.
11013	Richmond, CA - Refinery	3/25/2011 12:00:00 AM	Closed	Near miss	K-930 Packing Vent VOC Leak - Potential Production Loss due to VOC Leak	K-930 has a shutdown VOC that will expire at the end of the day on Sunday, 4/6/11. This VOC point monitors the packing vents from the compressor cylinders. These VOC leaks have historically been placed on the shutdown repair list and due in 5 years. Beginning in January, attempts have been made to repair all booster packing leaks within and between regular H2 booster maintenance windows, as all booster compressor SDO VOCs are coming due in 2011-13. K-930 packing VOC leak, however, is still drifting above the 500 ppm limit (limited on 328 at 4000ppm). K-940 is currently unavailable due to maintenance, and should it not return to service before K-930 must be shut down to repair VOC leaks, the North Yard must cut around 30 MMSCFD H2 consumption	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Plant rates almost impacted due to K-930 VOC deadline for repair and K-940 ongoing maintenance. 1. K-940 shut down unexpectedly the same week that K-930 was scheduled for maintenance, delaying the K-930 repair by 1 week. 2. K-930 VOC leak repair was not repaired in a timely manner ahead of the next 5 year report deadline during routine maintenance windows. Repairs were scheduled over 1 week before the VOC due date and did not allow sufficient time to allow for unanticipated additional compressor repairs. 3. Operations did not understand the need to shut down K-930 it was not realized by the deadline in order to avoid a sustained event and permit violation.
11033	Richmond, CA - Refinery	3/25/2011 12:00:00 AM	Closed	Near miss	K-930 Packing Vent VOC Leak - Potential Production Loss due to VOC Leak	K-930 has a shutdown VOC that will expire at the end of the day on Sunday, 4/6/11. This VOC point monitors the packing vents from the compressor cylinders. These VOC leaks have historically been placed on the shutdown repair list and due in 5 years. Beginning in January, attempts have been made to repair all booster packing leaks within and between regular H2 booster maintenance windows, as all booster compressor SDO VOCs are coming due in 2011-13. K-930 packing VOC leak, however, is still drifting above the 500 ppm limit (limited on 328 at 4000ppm). K-940 is currently unavailable due to maintenance, and should it not return to service before K-930 must be shut down to repair VOC leaks, the North Yard must cut around 30 MMSCFD H2 consumption	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Plant rates almost impacted due to K-930 VOC deadline for repair and K-940 ongoing maintenance. 1. K-940 shut down unexpectedly the same week that K-930 was scheduled for maintenance, delaying the K-930 repair by 1 week. 2. K-930 VOC leak repair was not repaired in a timely manner ahead of the next 5 year report deadline during routine maintenance windows. Repairs were scheduled over 1 week before the VOC due date and did not allow sufficient time to allow for unanticipated additional compressor repairs. 3. Operations did not understand the need to shut down K-930 it was not realized by the deadline in order to avoid a sustained event and permit violation.
11038	Richmond, CA - Refinery	3/23/2011 7:30:00 AM	Closed	Near miss	Green Card Wasp nest at the hydroblast pad.	Contractors found a wasp nest in a portable bathroom at the hydroblast pad. The wasp's had taken over the bathroom and were attacking anyone who tried to enter it.	NL-Injury/Illness - Contracted Injury	(1) Plant rates almost impacted due to K-930 VOC deadline for repair and K-940 ongoing maintenance. 1. K-940 shut down unexpectedly the same week that K-930 was scheduled for maintenance, delaying the K-930 repair by 1 week. 2. K-930 VOC leak repair was not repaired in a timely manner ahead of the next 5 year report deadline during routine maintenance windows. Repairs were scheduled over 1 week before the VOC due date and did not allow sufficient time to allow for unanticipated additional compressor repairs. 3. Operations did not understand the need to shut down K-930 it was not realized by the deadline in order to avoid a sustained event and permit violation.
11094	Richmond, CA - Refinery	9/29/2011 9:15:00 AM	Closed	Near miss	Green Card, Leg undermined by latent storm, walkway not sturdy. Location: Pops St below 3160 Tank - FCC	Green Card, Leg undermined by latent storm. Walkway not sturdy. Needs to be secured or replaced before standing on this section over-peakway. Location: Pops St below 3160 Tank - FCC	NL-Equipment/Property Damage - Equipment Damage	(1) Walkway was undermined due to the rainy weather
11163	Richmond, CA - Refinery	3/23/2011 10:30:00 AM	Closed	Loss	Shoulder discomf / First Aid	An employee on a workbench relieving wet absorbent pads from the water roll pan in the right shoulder while lifting one of the pads into the workbench. The employee did not report the possible injury until the next morning when he notified his Head Operator.	Injury/Illness	(1) Not communicating pre-existing medical condition on shoulder
11167	Richmond, CA - Refinery	3/21/2011 6:25:00 AM	Closed	Near miss	T-957 exceeded safe oil height by 21 bbls (suspect BDO valve)	At 6:25PM, the Refinery Control Operator received a high level alarm on T-957 (Tefaman) - Top TK55152. Production is currently set to T-956 so there should be no rise in T-957. A review of T-957 tank level shows that the tank level increased 74 bbls at a slow rate over the course of 5 hours starting at 12:14pm today. A check of all associated piping, manifolds etc revealed no unusual conditions. No PRD's were detected to be leaking by. The tank fill block was then closed and the level increase stopped. The tank level was lowered to below safe oil height. We suspect the problem may be with the 3" Totometer twin seal valve #750. This valve was recently identified as not being able to be fully opened. A work request #329452 was issued and the thought is that perhaps this valve is leaking by. Also identified that the T-957 fill twin seal valve at the tank manifold is bad order. This valve has been written up for maintenance to inspect and repair.	NL-Operational Process/Procedures - State Operating Limit (SOL) Exceeded	(1) Did not communicate clear expectation on the use of tank block valves
11208	Richmond, CA - Refinery	3/24/2011 5:15:00 PM	Closed	Loss	K-940 1st Stage #1 Cylinder Damage	K-940 shut down on high motor-end vibration after running approximately 2 hours, following #1 cylinder maintenance work. Initial conditions note K-940 was set up to run Rhen H2 per normal configuration. K-930 was shut down at the time K-940 was started up, until K-940 shut down, #1 cylinder sustained heavy damage on the piston and connecting rod due to suspected liquid contamination into 1st stage.	Equipment/Property Damage	(1) Liquid entered K-940 and knocked out in #1 cylinder, causing the piston damage. There is no online high level instrumentation on K-911C filter/coalescer upstream of K-930/940
11219	Richmond, CA - Refinery	3/29/2011 12:00:00 AM	Closed	Near miss	Link Lines to Centra Com Ratic system in Refinery	The copper wires between the radio control in Firehouse and the communication system on high hill experienced another near outage.	NL-Business Process Interruption	
11219	Richmond, CA - Refinery	3/29/2011 12:00:00 AM	Closed	Near miss	Link Lines to Centra Com Ratic system in Refinery	The copper wires between the radio control in Firehouse and the communication system on high hill experienced another near outage.	NL-Operational Interruption	

11219	CA - Refinery AM	12:00:00	Closed	Near Loss	Radio system in Refinery outage	The copper wires between the radio control in Firehouse and the communication system on night shift experienced another near outage.	Process/Procedures - Safety Systems	
11221	Richmond, CA - Refinery AM	3/31/2011 12:00:00	Closed	Near Loss	Outside Frequency Interference is occurring	Seeing on channel interference from system outside the refinery, or a radio within the refinery. We are continuing to look for the problem and tracking the interference. This problem can busy the system and make it hard to use radios reliably.	NL-Operational Process/Procedures - Safety Systems	
11221	Richmond, CA - Refinery AM	3/31/2011 12:00:00	Closed	Near Loss	Outside Frequency Interference is occurring	Seeing on channel interference from system outside the refinery, or a radio within the refinery. We are continuing to look for the problem and tracking the interference. This problem can busy the system and make it hard to use radios reliably.	NL-Business Process Interception	
11241	Richmond, CA - Refinery AM	4/12/2011 5:00:00	Closed	Near Loss	K-960 tripped on Low Lubrication pressure	At approximately 05:00 am at shift change the K-960 compressor crew called operations to tell them the lube oil filter for K-960 was spraying oil from the top gasket on filter K-961. Operations switched filters and the compressor shutdown on a transient low lube oil pressure. The compressor was restarted immediately and loaded up with no impact to the operating units.	NL-Operational Process/Procedures - Safety Systems	(1) SOS: Maintenance & Inspection: K-960 Spraying Oil, Lube Oil leaking from the filter (pc) section, Bad O-ring, Wear and Tear Over Time. (2) SOS: Training & Procedures: K-960 spraying OIL, Operator switched flow to the lube filter, Didn't look closely at the handle to see which way the flow was going. Switch Valve's arrow shape can be misinterpreted for position indication versus flow indication. (3) SOS: Training & Procedures: K-960 Spraying Oil, Operator switched flow to the heavy filter, Was Asked by Mechanics to Switch Filters, Mechanics Didn't Look Closely at the handle to see which way the flow was going. Switch Valve's arrow shape can be misinterpreted for position indication versus flow indication.
11250	Richmond, CA - Refinery PM	4/12/2011 3:00:00	Closed	Loss	T-1637 Safety Tank Exceeded Safe Oil Height	T-1637 Automatic fill system failed and the tank exceeded safe oil height. The automatic fill system is being controlled with an LDC level gauge system which is prone to failure because of moving parts.	Environmental	(1) Mechanical failure
11352	Richmond, CA - Refinery AM	4/4/2011 11:45:00	Closed	Loss	RI technician rolled ankle while stepping over pipe	assistant was carrying camera and equipment. He side stepped over an existing line to cross over it. When he stepped over he placed one foot on a rock. This rock moved when weight was put on it and the assistant rolled his ankle	NL-Injury/Illness - Contractor Injury	(1) technician fell pressure to complete job quickly
11352	Richmond, CA - Refinery AM	4/4/2011 11:45:00	Closed	Loss	RI technician rolled ankle while stepping over pipe	assistant was carrying camera and equipment. He side stepped over an existing line to cross over it. When he stepped over he placed one foot on a rock. This rock moved when weight was put on it and the assistant rolled his ankle	Injury/Illness	(1) technician fell pressure to complete job quickly
11370	Richmond, CA - Refinery AM	2/8/2011 12:00:00	Closed	Near Loss	Delay in RILOP Lab Reconstruction	RILOP lab equipment was removed from the current lab for testing samples to be run at the SISO lab and at GCD. Construction was to begin in early February, and has been delayed. Samples have been sent up to GCD for 2 months and counting with no construction started. They could have been run in the RILOP Lab, in a more timely and cost efficient manner during this delay.	NL-Quality - Product Quality (lit)	
11410	Richmond, CA - Refinery PM	4/4/2011 4:00:00	Closed	Near Loss	Insect bites	Employee noticed several insect bites located on the arms and head this morning. May have been the mosquito he killed late in the afternoon the previous day.	NL-Injury/Illness - Employee Injury	
11412	Richmond, CA - Refinery AM	4/4/2011 12:00:00	Closed	Near Loss	Radio interference issue	Radio system seeing on channel interfering signal. If strong enough could cause radio system to become unreliable.	NL-Operational Process/Procedures - Safety Systems	
11415	Richmond, CA - Refinery AM	4/12/2011 12:00:00	Closed	Near Loss	Radio interference issue	Poor Quality of phone lines created near outage of Control Radio Controller in the Firehouse. Got report of poor communication.	NL-Operational Process/Procedures - Safety Systems	
11429	Richmond, CA - Refinery AM	4/2/2011 8:30:00	Closed	Near Loss	Confirmed Internal and External Odor Complaints from 6 Ballast Line	Draining 6 Ballast line at flange to a vacuum truck with scrubber (liquid alive). under 500 Odors generated from draining line to a kitty pool.	NL-Environmental - Release	(1) Lack of oversight or supervision
11430	Richmond, CA - Refinery PM	4/2/2011 3:00:00	Closed	Near Loss	Temporary shutdown of gasoline blender	Mechanic working on VOC heater developed a pin-hole size leak on a blender valve connection spraying a small amount of gasoline to the atmosphere.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	
11482	Richmond, CA - Refinery AM	4/6/2011 8:00:00	Closed	Near Loss	Green Card - Nearly Knocked Someone Down	Green Card - As someone was exiting their office without looking they nearly knocked a co-worker over.	NL-Injury/Illness - Employee Injury	
					While delivering 13126 of tegrids in preparation for tank turnaround, degassing contractor pulled tegrids into their temporary exhaust ducting installed on a rock vent on the tank. This necessitated stopping degassing activities for a few hours to clean and replace the affected sections of ducting on the roof. Tegrids were sucked into the ducting because the degassing contractor's thermal oxidizer was in operation and pulling vacuum in the ducting while the floating roof was still resting on tegrid. It is a common practice to start degassing early so that exhaust from the vapor space will be continuous from the moment the roof is landed. In compliance with BAAQMD regulations, but the intent is to time this early start to just prior to when the roof			

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11539	Richmond, CA - Refinery	4/6/2011 8:15:00 AM	Closed	Minor Loss	Liquids pulled into temporary exhaust ducting	ML-Business Process - Business Interruption	
11542	Richmond, CA - Refinery	4/6/2011 2:00:00 PM	Closed	Loss	Operator fell pain in right hand while opening block valve.	ML-Physical Injury - Employee Injury	(1) No cause found. Potential use of body mechanics.
11542	Richmond, CA - Refinery	4/6/2011 2:00:00 PM	Closed	Loss	Operator fell pain in right hand while opening block valve.	Injury/Illness	(1) No cause found. Potential use of body mechanics.
11602	Richmond, CA - Refinery	4/7/2011 9:30:00 AM	Closed	Loss	Sub Contractor tripped over a piece of rebar and punctured his knee	Injury/Illness	(1) Crew did not remove the excess rebar from the working area.
11640	Richmond, CA - Refinery	4/7/2011 6:15:00 PM	Closed	Loss	Possible flange leak at pilot line, discovered while bypassing V-3211	ML-Environmental - Operational Leak	(1) Equipment failed due to environment
11621	Richmond, CA - Refinery	4/7/2011 8:56:00 AM	Closed	Loss	SRU #2 & #3 trains tripped off line.	Operational Process/Procedures	(1) Loss of 2 out of 3 SRU trains. Operators were commissioning an alternate 500# steam supply line for back up use in preparation for a planned maintenance job in the FCC by tying the SRU in-plant 450# steam hot to the Yard 500# steam hot. When the SRU operators began opening the 4" jump over block valve to tie the parallel lines together, a sudden drop (pressure & flow) in the SRU 450# steam hot occurred which caused an immediate loss of horsepower/RPM's to both K-2231 & 2331 back and blowers resulting in #2200 & 2300 pit train trips on low unit differential pressure. The operators immediately blocked in the jump over valve (normal closed position) then returned to the plant to begin unit stabilization procedures for loss of both trains. 2100 unit remained on-line. Why 1 - Both train trips were initiated by low unit differential FSC trips. Why 2 - Both TG blowers (K-2231 & K-2331) experienced a sudden reduction of RPM's which caused air flow to fall off fairly rapidly dropping unit DP below FSC trip points. Why 3 - Steam supply to both TG blower furnaces were hit with slugs of condensate which significantly slowed both turbines. Why 4 - Accumulated condensate was still present in the stagnant steam header being placed in service when the two hds were opened up to each other. Why 5 - Several condensate traps on the stagnant steam hot were later found to not be in working order and also were not checked by operators to confirm all condensate was removed in advance of tying the common hds together. Why 6 - Operators did not suspect water would be present and also did not anticipate steam from parallel hot would flow towards SRU from Yard 500# steam hot since both steam hot pressures were presumed to be the same (500# hot was actually 22 psig higher than in-plant hot). Why 7 - All potential threats were not recognized or discussed during the Pre-Task planning HSE. Why 8 - Not enough attention given to fully recognize/understand the risks before task was performed.

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11840	Richmond, CA - Refinery	4/7/2011 8:45:00 PM	Closed	Loss	Possible flange leak at plot line, disconnection while bypassing V-3211	pump discharge check valves and discharge block valves. Plan was to bypass V-3211 directing streams to V-1175 (separator/deaerator) in the crude unit. Clean up associated piping then release to maintenance for valve replacement. Estimated total time of V-3211 being bypassed would be approximately 48 hrs. During bypass operators responded to an odor coming from a Crude's Plot line. Upon arrival, operators noticed a possible preheating leak coming from below grade at 4 Crude Plot Limit.	Injury/Illness	(1) Equipment failed due to environment
11840	Richmond, CA - Refinery	4/7/2011 8:45:00 PM	Closed	Loss	Possible flange leak at plot line, disconnection while bypassing V-3211	P-3251's level controller (FC-021) needs to be pulled and sent to the shop for repairs. Two attempts at isolating and removing valve from service have been unsuccessful due to major leak by on the controller's isolation valves and both pump discharge check valves and discharge block valves. Plan was to bypass V-3211 directing streams to V-1175 (separator/deaerator) in the crude unit. Clean up associated piping then release to maintenance for valve replacement. Estimated total time of V-3211 being bypassed would be approximately 48 hrs. During bypass operators responded to an odor coming from a Crude's Plot line. Upon arrival, operators noticed a possible preheating leak coming from below grade at 4 Crude Plot Limit.	Environmental	(1) Equipment failed due to environment
11868	Richmond, CA - Refinery	4/8/2011 8:30:00 AM	Closed	Loss	Punctured finger causing laceration	Mistak, EE was inside of the 2000 HRSO manway EN performing inspection duties using a telescoping pole to raise a camera. While raising the camera, one of the sections of the pole was not completely locked allowing it to collapse and pinch his finger. Gloves were worn but a section of skin was peeled from his finger in the process.	Injury/Illness	(1) Improper tool for the job, (2) Inadequate training on tool being used
11732	Richmond, CA - Refinery	4/7/2011 11:05:00 PM	Closed	Loss	K-940 sudden shutdown.	At 23:03hrs K-940 suddenly shut down without triggering any alarms. Upon inspection the diode ring has come loose and is riding on the motor shaft.	Equipment/Property Damage	(1) Why did diode ring fail? Mount fasteners came loose allowing wiring to fall and ground 2) Why did the fasteners come loose? Based on condition of fasteners that came loose, they were not properly tightened and/or no lock washers/lockwheels was used during assembly 3) Why were fasteners not properly tightened? no written procedure available for assembling diode ring onto motor rotor 4) Why is there no procedure? In the past there has never been a procedure available and a failure of this type has never occurred.
11747	Richmond, CA - Refinery	4/7/2011 3:30:00 PM	Closed	Loss	Green Card - Nail sticking up on handrail	Green Card - There is a wooden handrail on the stairway leading from the Fluenhouse to the parking lot across the street. On the handrail there is a nail head sticking up slightly less than a half inch on the right handrail as you go down the stair. I saw the nail and moved my hand. I'm worried that others may not and will catch a finger or ring on the nail as they start down the stairs.	NL-Injury/Illness - Contractor Injury	
11747	Richmond, CA - Refinery	4/7/2011 3:30:00 PM	Closed	Loss	Green Card - Nail sticking up on handrail	Green Card - There is a wooden handrail on the stairway leading from the Fluenhouse to the parking lot across the street. On the handrail there is a nail head sticking up slightly less than a half inch on the right handrail as you go down the stair. I saw the nail and moved my hand. I'm worried that others may not and will catch a finger or ring on the nail as they start down the stairs.	NL-Injury/Illness - Employee Injury	
11792	Richmond, CA - Refinery	4/11/2011 7:30:00 AM	Closed	Loss	Green Card - potential loss of productive time	Green Card - potential loss of productive time. The HF-20 proactive event presentation was not posted prior to the meeting time. People had come from the plant and had the primary for a team meeting where this team was to be the lead team. Green Card team lead was able to obtain another copy of the presentation from an SUE.	NL-Business Process - Business Process	
11821	Richmond, CA - Refinery	4/7/2011 2:40:00 AM	Closed	Loss	C-50 bottoms flange leak	At ~ 2:45 am, 4/11N, a flange off of the P-105A bypass line began to leak (spray) C-50 bottoms to atmosphere coating surrounding piping. Leak was noticed by operator making rounds. crew was notified and then the line was isolated.	NL-Environmental - Operational Leak	(1) SOS: Design & Engineering: D/E of Equipment: Valve material failed in this service, (2) SOS: Maintenance & Inspection: Inspection and Testing: Flange is not on a Preventative Maintenance Program, (3) Stiebar SOS: Training & Procedures (Process Safety Information): History brief for P-105A was found to be incorrect.
11821	Richmond, CA - Refinery	4/7/2011 2:40:00 AM	Closed	Loss	C-50 bottoms flange leak	At ~ 2:45 am, 4/11N, a flange off of the P-105A bypass line began to leak (spray) C-50 bottoms to atmosphere coating surrounding piping. Leak was noticed by operator making rounds. crew was notified and then the line was isolated.	Loss of Containment	(1) SOS: Design & Engineering: D/E of Equipment: Valve material failed in this service, (2) SOS: Maintenance & Inspection: Inspection and Testing: Flange is not on a Preventative Maintenance Program, (3) Stiebar SOS: Training & Procedures (Process Safety Information): History brief for P-105A was found to be incorrect.
11821	Richmond, CA - Refinery	4/7/2011 2:40:00 AM	Closed	Loss	C-50 bottoms flange leak	At ~ 2:45 am, 4/11N, a flange off of the P-105A bypass line began to leak (spray) C-50 bottoms to atmosphere coating surrounding piping. Leak was noticed by operator making rounds. crew was notified and then the line was isolated.	Environmental	(1) SOS: Design & Engineering: D/E of Equipment: Valve material failed in this service, (2) SOS: Maintenance & Inspection: Inspection and Testing: Flange is not on a Preventative Maintenance Program, (3) Stiebar SOS: Training & Procedures (Process Safety Information): History brief for P-105A was found to be incorrect.

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11651	Richmond, CA - Refinery	4/12/2011 5:28:00	Closed	Loss	Employee rolled ankle while walking from crew van to turntable	base (delaminator "orange" was missing and only the stationary base was in place). Employee rolled right ankle, slumped fall striking left knee on asphalt and before coming to rest on right side. The employee left pain in right ankle and was helped by co-worker to small building near turntable # 53. A call was made to on call STL # 2-2527. Following CPO review employee was transported to hospital via A&M services for medical follow-up.	Injury/Illness	(1) Employee did not look for working hazard as he exited the van. (2) Partially disassembled delaminator base left a tripping hazard.
11673	Richmond, CA - Refinery	4/6/2011 12:00:00	Closed	Near Loss	Green Card. No working telephones within the facility.	While clearing up wood and other form materials inside a newly constructed reactor, a 3rd employee slipped in some gravel while carrying a couple pieces of wood. The load consisted of a 4x4 and a 4x6 approximately 7' long. When he fell, the contractor landed on the load striking his left shoulder.	NL-Injury/Illness - Employee Injury	(1) wind and rain caused tree to fall on phone lines, (2) wind and rain caused tree to fall on phone lines
11676	Richmond, CA - Refinery	4/12/2011 11:00:00	Closed	Loss	Sub-Contractor (BCI) slipped in some gravel causing him to fall and injure his left shoulder.	Lost the ability to operate the logs because using P-360 as the Mogas Blower host for the P-360. A significant loss of use from the Mogas blower to finished product handling.	Injury/Illness - Business Process Interruption	(1) Contractor slipped and fell on loose gravel due to compaction and a unbalanced load.
11681	Richmond, CA - Refinery	4/12/2011 12:00:00	Closed	Near Loss	Loss of P-360 vibration monitor	Lost the ability to operate the logs because using P-360 as the Mogas Blower host for the P-360. A significant loss of use from the Mogas blower to finished product handling.	NL-Business Process Interruption	
12038	Richmond, CA - Refinery	3/23/2011 12:00:00	Closed	Loss	During a JPE load on the Mississippi Voyager #18 the stowed slings of particulate and water contamination	During the loading process of the Mississippi Voyager V153 Chayron on 5 of 6 vessel compartments. Condensate pump south of V1263 not working. Hot condensate is overflowing making access to the pumps hazardous. EE's are using wood planks and planks for access. Hazmat was written for pumps repair. Need stopping for the immediate time.	Quality	(1) Mississippi Voyager loading piping and compartment configuration do not allow for effective cleaning and inspection according to milling standards. This increases the potential to contaminate JPE with particulates, water, and/or prior cargo. (2) Microscopic filtration on 16" line is not compliant with EI 1580 or EI 1346 for micro filter elements and filter vessel not effectively removing particulates from the finished product. (3) Use of contamination was not identified. (4) Use of contamination was not identified. (5) Use of contamination was not identified. (6) Use of contamination was not identified. (7) Use of contamination was not identified. (8) Use of contamination was not identified. (9) Use of contamination was not identified. (10) Use of contamination was not identified. (11) Use of contamination was not identified. (12) Use of contamination was not identified. (13) Use of contamination was not identified. (14) Use of contamination was not identified. (15) Use of contamination was not identified. (16) Use of contamination was not identified. (17) Use of contamination was not identified. (18) Use of contamination was not identified. (19) Use of contamination was not identified. (20) Use of contamination was not identified. (21) Use of contamination was not identified. (22) Use of contamination was not identified. (23) Use of contamination was not identified. (24) Use of contamination was not identified. 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12235	Richmond, CA - Refinery	4/18/2011 12:45:00 PM	Closed	Near Loss	Green Card - Vehicle Speeding	approximately 25-30 mph drove into Catalina parking lot from direction of Main Gate and parked. Assumed it to be a personal vehicle (no signs showing affiliation with any company). NOTE - posted speed limit on road from Main Gate is 15 mph, posted speed limit in Catalina parking lot is 5 mph.	NL-Transportation - Personnel Use	
12236	Richmond, CA - Refinery	4/13/2011 9:30:00 AM	Closed	Near Loss	Green Card. During an evacuation, nobody was assigned to secure doors	Green Card. During a building evacuation at the cafeteria, nobody was assigned to secure doors and prevent someone from entering the building. Everyone was at evacuation location. I stopped someone from entering the building just because I happened to be standing in the vicinity. Location: Tech Center - Cafeteria	NL-Injury/Illness - Employee Injury	
12262	Richmond, CA - Refinery	4/18/2011 4:05:00 PM	Closed	Near Loss	1601	Vehicle contacted the outlager of a light plant. No damage.	NL-Equipment/Property Damage - Equipment Damage	
12385	Richmond, CA - Refinery	4/20/2011 9:30:00 AM	Closed	Loss	Operator strided w/ shoulder descending ladder.	As operator was descending ladder at E-551, his foot slipped and as he caught himself he fell a pain in his left shoulder.	NL-Injury/Illness - Contractor Injury	(1) Why did the operator strain his shoulder - Strained should because he lost his footing. Why did the operator lose his footing? He was not looking down and he was not coordinating on the task of descending the ladder.
12401	Richmond, CA - Refinery	4/18/2011 12:00:00 PM	Closed	Near Loss	Green Card - tripping hazard on wooden bridge	Green Card - Pedestrian bridge near Building Permit Services has one plank sticking up. Employee almost lost their footing.	NL-Injury/Illness - Contractor Injury	
12401	Richmond, CA - Refinery	4/18/2011 12:00:00 PM	Closed	Near Loss	Green Card - tripping hazard on wooden bridge	Green Card - Pedestrian bridge near Building Permit Services has one plank sticking up. Employee almost lost their footing.	NL-Injury/Illness - Employee Injury	
12405	Richmond, CA - Refinery	4/20/2011 3:50:00 PM	Closed	Loss	Lost power to building. Plastics trash can was placed 2' from electrical switch, the wind blew it down and down on switch moving it from on to off position causing loss of power to building.	Lost power to GAG Office Facility. A plastic trash can was placed 2' from electrical switch, the wind blew it down and down on switch moving it from on to off position causing loss of power to building.	NL-Business Process Interruption	(1) Unknown
12456	Richmond, CA - Refinery	4/21/2011 7:10:00 AM	Closed	Near Loss	Loss of radio system due to bad cable from dispatch to High Hill	For the last 20+ years the communications cable between the fire department dispatch center and the high hill repeater site has fire issue causing the system to unknowingly lose the ability to communicate on the system. Units call into the dispatch center and the radio signal due to communications the loss fails to reach the dispatch center. Field units call and the radio unit is an issue with the system until a telephone call is made to the dispatch center.	NL-Business Process Interruption	(1) 1. Why did 'problem' occur? Workers & Field Construction Rep had perception that did not need to wear FRC outside of process plant areas. 2. Why did 'it' happen? Training & RI-314 reinforce that need to wear FRC in process plant areas (while lined). 91 Gate training and RI-314 do not clearly address issue of FRC in pipeline or areas around process plants. 3. Why did 'it' happen? 91 Gate Training and RI-314 do not clearly address need to conduct a case-by-case risk assessment. Why did 'it' happen? RI-314 does not have a clear risk assessment focused on FRC and pipeline? Prior risk assessment focused on FRC and process plant areas due to previous incidents. (2) 1. Why did 'problem' occur? Workers & Field Construction Rep had perception that did not need to wear FRC outside of process plant areas. 2. Why did 'it' happen? Training & RI-314 reinforce that need to wear FRC in process plant areas (while lined). 91 Gate training and RI-314 do not clearly address issue of FRC in pipelines or areas around process plants. 3. Why did 'it' happen? 91 Gate Training and RI-314 do not address need to conduct a case-by-case risk assessment.
12461	Richmond, CA - Refinery	4/20/2011 10:50:00 AM	Closed	Near Loss	Green Card - Survey Work (no FRC)	Green Card - I observed two contract workers performing survey work w/o Fire Resistant Clothing (FRC). I approached them and asked them about their FRC and they were unaware of the requirement. I called their field construction rep who stated they didn't need it because they were working in the road. They were not working in the road, and their location was always changing as they were surveying for some cable installation. In other words, they were not a short term visitor, they were escorted by a company rep and they would be doing work at times near our pipelines and process plant plot limits.	NL-Injury/Illness - Contractor Injury	
12467	Richmond, CA - Refinery	4/21/2011 11:50:00 AM	Closed	Near Loss	Green Card - Talking on Cell Phone while driving	Green Card - Observed Driver of Maroon Car Talking on cell phone while driving on Center Street near Midway Intersection.	NL-Transportation - Personal Use	
12467	Richmond, CA - Refinery	4/21/2011 11:50:00 AM	Closed	Near Loss	Green Card - Talking on Cell Phone while driving	Green Card - Observed Driver of Maroon Car Talking on cell phone while driving on Center Street near Midway Intersection.	NL-Transportation - Contractor	
12467	Richmond, CA - Refinery	4/21/2011 11:50:00 AM	Closed	Near Loss	Green Card - Talking on Cell Phone while driving	Green Card - Observed Driver of Maroon Car Talking on cell phone while driving on Center Street near Midway Intersection.	NL-Transportation - Company	
12473	Richmond, CA - Refinery	4/21/2011 2:50:00 PM	Closed	Near Loss	Green Card, Cell phone use while driving	Green Card. These employees to be use of cell phones while driving in the Refinery. This topic was discussed in our work group and several had reported seeing this. Location: DMR	NL-Injury/Illness - Employee Injury	

12519 Refinery	4/22/2011 6:21:30 AM	Closed	Loss	Power drop from PG&E caused SRU train trip and misc. equipment trips.	Operational Process/Procedures	(1) PG&E feeder short
12525 Refinery	4/22/2011 1:31:50 PM	Closed	Loss	Security Officer was returning to Gate 91 Guard Shack at exit side when Gate arm was activated by a driver departing refinery. Gate arm rising caught the sleeve of Officer's shirt and broke off as Officer attempted to get free off gate arm.	Equipment/Property Damage	(1) Officer walked within the operating area of the moving barrier arm because there were no markings to show Officers that the operating area of the barrier arm is an unsafe area.
12547 Refinery	4/22/2011 10:00:00 AM	Closed	Loss	Improper PPE inside of a regulated area	NL-Operational Process/Procedures - Safety Systems	
12548 Refinery	4/22/2011 10:00:00 AM	Closed	Loss	Near Miss, contact with 120V electrical tracing	NL-Injury/Illness - Employee Injury	(1) Why 1: The FSC ordered the LIP (correctly per its programming). Why 2: The two fire eyes on F-2330 showed that there was no flame in the furnace for 5 seconds. Why 3: There was no power to the fire eyes. Why 4A: There was a trip at the breaker in UBE. There is a separate incident investigation for this. Why 4B: The UPS should have supplied backup power to one of the fire eyes, but did not. Why 5: The UPS was plugged into the wrong power outlet (an outlet on the wrong bus) into the UPS battery. Why 5B: It is unclear when the UPS was unplugged incorrectly. Why 5C: The SRU #3 shutdown. The power supply was not clearly labeled and the PM for checking the battery and condition of the UPS's has been delayed during the change from Pasport to Maximo. (2) Why 1: The FSC ordered the trip (correctly per its programming). Why 2: The two fire eyes on F-2330 showed that there was no flame in the furnace for 5 seconds. Why 3: There was no power to the fire eyes. Why 4A: There was a trip at the breaker in UBE. There is a separate incident investigation for this. Why 4B: The UPS should have supplied backup power to one of the fire eyes, but did not. Why 5: The UPS was plugged into the wrong power outlet (an outlet on the wrong bus) into the UPS battery. Why 5B: It is unclear when the UPS was unplugged incorrectly, possibly during the SRU #3 shutdown. The power supply was not clearly labeled and the PM for checking the battery and condition of the UPS's has been delayed during the change from Pasport to Maximo.
12550 Refinery	4/22/2011 6:30:00 AM	Closed	Loss	NO SRU tripped	Operational Process/Procedures	
12550 Refinery	4/22/2011 6:30:00 AM	Closed	Loss	SRU #3 train tripped off line when the refinery experienced a power surge (see L.I.#12519). The unit tripped off with both fire eyes on F-2330 shutdown. Investigating into the electrical started.	Operational Process/Procedures	
12550 Refinery	4/22/2011 6:30:00 AM	Closed	Loss	T-2000 - 13.8KV bus cleared when CGT-2000 13-4 Breaker closed during start-up. 1) Started CGT-2000 per start-up procedure. 2) Fire in CGT-2000 @ 2133hrs. 3) T-2000 Generator Breaker 13-4 Closed into 13-8KV bus @ 1233hrs. 4) @ 1233hrs Phase B Bus DIF (97L T & S) activated causing the 13-6 bus to open all breakers. 5) Breakers that Opened: 13-2 Transformer Breaker. This isolated the 13.8 bus from 118KV system. 13-10 Breaker in TX-424. This isolated the 2.4KV bus at Cogen PCC. MP-2850A & MP-1850B. BFW Pumps. 13-12 Breaker in TX-406. This isolated the 480V bus at Cogen PCC. This caused 480V-2 breaker to lose power. This breaker provides power to C13680NAC. This caused the loss of line oil pump to TG-580. When the start-up sequence was completed, the 13-8 bus was re-energized and SRU TC400 opened 13-30 Breaker. 90PC355. From this point on, the 13-8 bus was open to contact the 150M steam system. This is done automatically when TG-800 Trips. 13-15 Breaker in TX-448 to #3 TL. 12-11 Breaker @ #4 Power Plant. This isolated the #3 Tie-Line 120V power to off Power Plant. 12-	NL-Operational Process/Procedures -	

https://impactern.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

12901	Richmond, CA - Refinery	4/21/2011 PM	Closed	Near Loss	Green Card-Chair nearly tips over	lifting over on his back. Some of the 4-roller wheeled chairs were taken out of service a few years ago for a different reason. The 6-roller wheeled chairs can hand have to my knowledge have not caused any problems. Be more diligent in screening out the chairs in question. Make knowledge of incident to other personnel.	NI-Injury/Illness - Contractor Injury	
12901	Richmond, CA - Refinery	4/21/2011 PM	Closed	Near Loss	Green Card-Chair nearly tips over	Green Card-Chairman Employee started to sit down in a 4-roller wheeled chair with a tilt back function and was violently lurched back in the chair almost tipping over on his back. Some of the 4-roller wheeled chairs were taken out of service a few years ago for a different reason. The 6-roller wheeled chairs can hand have to my knowledge have not caused any problems. Be more diligent in screening out the chairs in question. Make knowledge of incident to other personnel.	NI-Injury/Illness - Employee Injury	
12913	Richmond, CA - Refinery	4/22/2011 2:00:00 PM	Closed	Near Loss	Green card - Doing radiation work in back of tank 3128 company did not let us know what was going on	Green card - Doing radiation work in back of tank 3128 company did not let us know what was going on	NI-Injury/Illness - Employee Injury	
12913	Richmond, CA - Refinery	4/22/2011 2:00:00 PM	Closed	Near Loss	Green card - Doing radiation work in back of tank 3128 company did not let us know what was going on	Green card - Doing radiation work in back of tank 3128 company did not let us know what was going on	NI-Injury/Illness - Contractor Injury	
12914	Richmond, CA - Refinery	4/22/2011 2:00:00 PM	Closed	Near Loss	Green card - Higher than 4 feet up a ladder, no safety harness	Green card - Higher than 4 feet up a ladder, no safety harness	NI-Injury/Illness - Employee Injury	
12914	Richmond, CA - Refinery	4/22/2011 2:00:00 PM	Closed	Near Loss	Green card - Higher than 4 feet up a ladder, no safety harness	Green card - Higher than 4 feet up a ladder, no safety harness	NI-Injury/Illness - Contractor Injury	
12916	Richmond, CA - Refinery	4/20/2011 10:00:00 AM	Closed	Near Loss	Green card - use of incorrect tool to safely do job	Green card - during a job to cougar sack transfer (at ESA) I noticed the technicians were using the wrong tool for the job, a funnel that was not big enough which caused the catalyst dust to go everywhere.	NI-Injury/Illness - Employee Injury	
12916	Richmond, CA - Refinery	4/20/2011 10:00:00 AM	Closed	Near Loss	Green card - use of incorrect tool to safely do job	Green card - during a job to cougar sack transfer (at ESA) I noticed the technicians were using the wrong tool for the job, a funnel that was not big enough which caused the catalyst dust to go everywhere.	NI-Injury/Illness - Contractor Injury	
12917	Richmond, CA - Refinery	4/20/2011 10:00:00 AM	Closed	Near Loss	Green card - unsafe work practices	Green card - During a job to cougar sack transfer (at ESA) I noticed that the technician had tip get under the lochin to open the valve while it was raised in the air.	NI-Injury/Illness - Employee Injury	
12917	Richmond, CA - Refinery	4/20/2011 10:00:00 AM	Closed	Near Loss	Green card - unsafe work practices	Green card - During a job to cougar sack transfer (at ESA) I noticed that the technician had tip get under the lochin to open the valve while it was raised in the air.	NI-Injury/Illness - Contractor Injury	
12936	Richmond, CA - Refinery	4/28/2011 10:00:00 AM	Closed	Loss	Leak on the PUL filler Pol mects from the valve loading	Blown gasket on the PUL filler pol near the Truck Loading Rack flnce which leaked less than a half barrel to a contained basin.	Environmental	(1) Fine has no relief when T-1005 the tank this line released to was taken out service, the system PDI's do not have a route to relieve for run pressure. (2) Not compliance on establish procedure
12974	Richmond, CA - Refinery	4/28/2011 4:15:00 PM	Closed	Loss	> 1 bbl spill (H2O / HCl) into pipe section between T-3104 / T-3105	Crew was working to get MP-713 hot and on stand by. MP-713 was released from main, after repairs were made on a cracked weld on the pump discharge spool, AFS root block. While working through the P-713/A comminutor/start pump procedure (procedure TRK-MP-4312) HGO flow to FCC was lost. Following procedure area operator got to step 2.10 Using hand jack slowly open P-713/A section block 2.3 turns. When the operator did this light shed on the pump block 2.3 turns. When the operator did this light shed on the pump block 2.3 turns. The board operator notified the operator of the flow and area operator closed the suction block (Procedure steps 3.11/1) and the on line pump regained suction and flow was reestablished to FCC. In the	Environmental	(1) Contractor failed to close block valve before disconnecting line. Why? Because contractor was not following procedures. Why? Because contractor was in a hurry

(1) Suction valve of MP-713 was opened to far thus allowing

12867	Richmond, CA - Refinery	4/29/2011 1:00:00 AM	Closed	Near Loss	Loss of HGO flow to FCC	procedure. It wasn't "cautious" of the potential of the on the pump testing suction and flow. It also wasn't "cautious" of the potential of the on the pump testing suction and flow. The loss of flow to FCC was not noticed until the FCC feed cut, after flow was reestablished the FCC line worked to get the unit back stable.	NL-Operational Process/Hazardous - Piping Run Out/Slur Down	light seal flush stuck to enter section line and ultimately getting up the line pump. (2) Procedure is too vague need to be more precise on how far to open section valve when venting up pump.
13178	Richmond, CA - Refinery	5/2/2011 8:16:00 AM	Closed	Loss	Arthen K-3550 shutdown and caused the furnaces to trip	Loss of Arthen K-3550 caused loss of hydrogen to North Yard (TKN feed cut, pulled MCO from TKN, cut H2 bleed) and sent DHT product offsite, NHT feed cut.	NL-Quality - Product Quality (Int)	
13178	Richmond, CA - Refinery	5/2/2011 8:16:00 AM	Closed	Loss	Arthen K-3550 shutdown and caused the furnaces to trip	Loss of Arthen K-3550 caused loss of hydrogen to North Yard (TKN feed cut, pulled MCO from TKN, cut H2 bleed) and sent DHT product offsite, NHT feed cut.	Quality	
13180	Richmond, CA - Refinery	5/2/2011 12:00:00 AM	Closed	Near Loss	Concrete dust blew in eye	Contractor concrete dust blew in his eye.	NL-Injury/Illness - Contractor Injury	
13245	Richmond, CA - Refinery	5/2/2011 6:17:00 AM	Closed	Loss	Gate 31	At the above time, date and location the Chemical Transfer vehicle (semi) stopped at Gate 31 to turn in their "pink card" (temporary entry permit) to the Officer at the gate and depart the refinery. Immediately after the Officer took the "pink card" the driver drove his vehicle into the gate, breaking the gate arm off. The driver did not wait for the Officer to manually open the gate. Since the driver had just made a delivery to the refinery and was possibly not aware of the security protocol to the Officer to manually press the button to raise the gate for him to exit, he drove through the gate, breaking off the barrier arm. There was no damage to the Contractor vehicle and the gate was immediately repaired and put back into service.	NL-Injury/Illness - Employee Injury	(1) Contractor vehicle proceeded attempt to exit refinery at Gate 31 before Security Officer could manually push button to lift gate. Gate had to be lifted manually because Driver was making a first time delivery and did not have a Smart Bridge. Driver was required to return "pink Card" (Temporary Permit) to gate Officer and was not aware that he had to wait for gate to be lifted manually. Also, probably did not see gate from his high position in the semi.
13247	Richmond, CA - Refinery	5/2/2011 8:00:00 AM	Closed	Near Loss	Green Card, Tripping hazard, Location: Between 4 Crude and DHT.	Green Card, While walking through the lot between 4 Crude and DHT, I noticed a lot of debris, pipe fittings, metal, garbage which could pose a tripping hazard or a driving hazard.	NL-Injury/Illness - Contractor Injury	
13249	Richmond, CA - Refinery	5/2/2011 12:00:00 PM	Closed	Loss	Employee was handling furnace and right side of neck made contact with the steam tracing which caused a minor burn.	Employee was assisting insulation wrap steam tracing on P-1601 in the RLOP unit. While working with insulation, employee made contact with a piece of hot 12" ss steam tracing. Contact caused a minor burn to right side of neck.	Injury/Illness	(1) Unaware of surrounding environment
13267	Richmond, CA - Refinery	5/2/2011 3:30:00 PM	Closed	Loss	A-Train tripped due to high Furnace box pressure.	On May 3rd in the morning adjustments were made to A-Train trying to maximize steam output. Then the decision was made to return back to normal. Around 3 hours later, things were back to normal and a move needed to be made on the PC-318. The Operator in training on the work station saw that it was in "BCAS" (a cascade mode) and placed it back to manual and went to change the cut put from 7.2% open to 7.3% open and entered 7.3. Instead of 7.3, when PC-318 closed off to 7.3%, the furnace got a high furnace box pressure alarm and then the furnaces went to min fire (per procedure) and automatically opens the guillotine (drift fan by pass). This caused the drift fan "F-309" to shut down on high amps. A breaker reset was done on K305. PC318 was opened to 75% in manual, closed the guillotine (drift fan by pass) and restarted K305. At that time we were able to re-fire all burners on the furnace and start recovering from min. fire. We also tripped the FCC flare isolator when A-Train went to min fires due to over pressurizing of the Fuel Gas KG (N-314) for F-305, 355 and F-340. Please see investigation root causes and journal notes.	Operational Process/Procedures	(1) The wrong output was entered by an "in Training" Operator. The Operator had been "Piggy Backing" on OWS-2 for just a short time, getting to learn in depth process control and learning about various key process variables. Learning how changes in the process as well as alarm response moves. This being done under watch of a qualified control board Operator. (2) Totalizer trip on the FCC flare was caused by not having a contingency plan/procedure in place for running with the Bypass open on PC-314. Procedure should capture what to do if any of F-305, F-355 or F-340 FSCs trip.
13267	Richmond, CA - Refinery	5/2/2011 3:30:00 PM	Closed	Loss	A-Train tripped due to high Furnace box pressure.	On May 3rd in the morning adjustments were made to A-Train trying to maximize steam output. Then the decision was made to return back to normal. Around 3 hours later, things were back to normal and a move needed to be made on the PC-318. The Operator in training on the work station saw that it was in "BCAS" (a cascade mode) and placed it back to manual and went to change the cut put from 7.2% open to 7.3% open and entered 7.3. Instead of 7.3, when PC-318 closed off to 7.3%, the furnace got a high furnace box pressure alarm and then the furnaces went to min fire (per procedure) and automatically opens the guillotine (drift fan by pass). This caused the drift fan "F-309" to shut down on high amps. A breaker reset was done on K305. PC318 was opened to 75% in manual, closed the guillotine (drift fan by pass) and restarted K305. At that time we were able to re-fire all burners on the furnace and start recovering from min. fire. We also tripped the FCC flare isolator when A-Train went to min fires due to over pressurizing of the Fuel Gas KG (N-314) for F-305, 355 and F-340. Please see investigation root causes and journal notes.	Environmental	(1) The wrong output was entered by an "in Training" Operator. The Operator had been "Piggy Backing" on OWS-2 for just a short time, getting to learn in depth process control and learning about various key process variables. Learning how changes in the process as well as alarm response moves. This being done under watch of a qualified control board Operator. (2) Totalizer trip on the FCC flare was caused by not having a contingency plan/procedure in place for running with the Bypass open on PC-314. Procedure should capture what to do if any of F-305, F-355 or F-340 FSCs trip.
13267	Richmond, CA - Refinery	5/2/2011 3:30:00 PM	Closed	Loss	A-Train tripped due to high Furnace box pressure.	On May 3rd in the morning adjustments were made to A-Train trying to maximize steam output. Then the decision was made to return back to normal. Around 3 hours later, things were back to normal and a move needed to be made on the PC-318. The Operator in training on the work station saw that it was in "BCAS" (a cascade mode) and placed it back to manual and went to change the cut put from 7.2% open to 7.3% open and entered 7.3. Instead of 7.3, when PC-318 closed off to 7.3%, the furnace got a high furnace box pressure alarm and then the furnaces went to min fire (per procedure) and automatically opens the guillotine (drift fan by pass). This caused the drift fan "F-309" to shut down on high amps. A breaker reset was done on K305. PC318 was opened to 75% in manual, closed the guillotine (drift fan by pass) and restarted K305. At that time we were able to re-fire all burners on the furnace and start recovering from min. fire. We also tripped the FCC flare isolator when A-Train went to min fires due to over pressurizing of the Fuel Gas KG (N-314) for F-305, 355 and F-340. Please see investigation root causes and journal notes.	Environmental	(1) The wrong output was entered by an "in Training" Operator. The Operator had been "Piggy Backing" on OWS-2 for just a short time, getting to learn in depth process control and learning about various key process variables. Learning how changes in the process as well as alarm response moves. This being done under watch of a qualified control board Operator. (2) Totalizer trip on the FCC flare was caused by not having a contingency plan/procedure in place for running with the Bypass open on PC-314. Procedure should capture what to do if any of F-305, F-355 or F-340 FSCs trip.

(1) not checking fax completion document for successful

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13276	CA - Refinery	12/06/00	Closed	Loss	until Feb. 8) NOV was issued on 5-2-11	Environmental	Transmission of fax, (2) Not building lightning fire into 21-Day plan
13321	Richmond, CA - Refinery	6/4/2011 12:00:00	Closed	Loss	Trailer towing tongue damage during unauthorized move	Transportation	(1) Unauthorized move of trailer
13337	Richmond, CA - Refinery	4/29/2011 12:00:00	Closed	Loss	Feed Rate Limits and CO Excursion	Environmental	(1) CO exceedance caused by excessive afterburn that was not responding to normal operator actions. Operator did not know about high Cal activity. (2) Feed rate limited through shutdown. (3) Feed rate limited through increased amount of MCRT causing high levels of coke.
13342	Richmond, CA - Refinery	6/3/2011 4:40:00	Closed	Near miss	Green Card - LT Cigarette but located on floor of smoking post	NI-Pre/Excursion	
13344	Richmond, CA - Refinery	6/3/2011 11:00:00	Closed	Near miss	Green Card - Invalid Ignition Source Permit at Smoking Post	NI-Business Process - Business Process	
13349	Richmond, CA - Refinery	6/4/2011 7:12:00	Closed	Loss	K-1100B High Vibration shutdown	Equipment/Property Damage	(1) Dentist pad allowing liquid to enter compressor.
13380	Richmond, CA - Refinery	5/2/2011 7:00:00	Closed	Near miss	Green Card - unconfirmed odor complaint	NI-Environmental - Release	
13408	Richmond, CA - Refinery	5/2/2011 7:00:00	Closed	Loss	EE Scratched Head	Injury/Illness	(1) Employee scratched head because she didn't see lid sticking out.

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13424	Richmond, CA - Refinery	4/15/2011 8:30:00 AM	Closed	Near Loss	the line. Mechanic almost mistook them as steam lines for air line.	NL-Lessons Learned	
13651	Richmond, CA - Refinery	5/02/2011 4:05:00 PM	Closed	Loss	Mechanic got a particle in the left eye.	Injury/Illness	(1) EE used recommended PPE however during the task the grinding wheel was able to kick up metal particles under the face shield and safety glasses because it was spinning toward the user instead of away from the user.
13564	Richmond, CA - Refinery	4/25/2011 12:00:00 AM	Closed	Near Loss	OSI post scope freeze revealed remaining life issues remaining during turnaround.	NL-Business Process - Business Interruption	
13624	Richmond, CA - Refinery	6/09/2011 1:00:00 PM	Closed	Loss	EE felt discomfort in lower back and left leg. While welding in the overhead position which requires holding his arms above his head for extended period of time.	NL-Injury/Illness - Employee Injury	(1) EE in stationary position numerous times for long periods of time the last several weeks while performing welding training.
13604	Richmond, CA - Refinery	5/09/2011 1:00:00 PM	Closed	Loss	EE felt discomfort in lower back and left leg while welding in the overhead position which requires holding his arms above his head for extended period of time.	Injury/Illness	(1) EE in stationary position numerous times for long periods of time the last several weeks while performing welding training.
13661	Richmond, CA - Refinery	5/10/2011 12:00:00 PM	Closed	Loss	Employee was working on a breaker and one arc shoe was extended. Employee turned to get the breaker and the arc shoe struck him above the right eyebrow causing a small cut.	Injury/Illness	(1) Employee lost his situational awareness while working on the breaker.
13664	Richmond, CA - Refinery	5/10/2011 8:00:00 AM	Closed	Near Loss	Green Card. Risk of bumping air valve handle inadvertently. Location: Alky V-1441	NL-Lessons Learned	
13666	Richmond, CA - Refinery	5/10/2011 8:00:00 AM	Closed	Near Loss	Green Card. Traffic minor at a Pump Station on Quarry Rd is missing. Location: Quarry Tank Field	NL-Lessons Learned	
13667	Richmond, CA - Refinery	5/10/2011 12:00:00 AM	Closed	Near Loss	Green Card. Pigners are causing an inconvenience and a health hazard. The pigners affect areas by producing lots of bird droppings and sickness caused by the droppings. Location: Machine Shop	NL-Lessons Learned	(1) Broken windows in various areas of the shop. (2) Shop is not adequately cleaned in the morning. (3) Still which provides entry points for birds to enter the various areas. (4) Pigners are scratching and nesting in the shop.
13671	Richmond, CA - Refinery	5/10/2011 12:00:00 PM	Closed	Loss	Operator injured back removing sling from underneath cargo boxes.	Injury/Illness	(1) Lifting heavy cargo boxes. Operator says he used proper ergonomics back straight, lifting with his legs. (2) Broken windows in various areas of the shop. (3) Still which provides entry points for birds to enter the various areas. (4) Pigners are scratching and nesting in the shop.

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13983	Richmond, CA - Railway	5/15/2011 8:00:00 AM	Closed	Near Loss	extensive amount of pigeon droppings. Location: Machine Shop	making it difficult for employees to avoid breathing it in. Inhalation of pigeon droppings can cause serious illness in human beings, and that is why this matter should be handled with some sense of urgency.	NL - Lessons Learned	
14047	Richmond, CA - Railway	5/15/2011 8:00:00 AM	Closed	Near Loss	Green Card, Pigeon droppings all over the Machine Shop floors and equipment. A green card was put in before #143583 and the supervisor's only action was for everyone to wear dust masks which do not protect you from the fine particles of the pigeon droppings. A special respirator would need to be worn.	Green Card. There is pigeon droppings all over the Machine Shop floors and equipment. A green card was put in before #143583 and the supervisor's only corrective action was for everyone to wear dust masks which do not protect you from the fine particles of the pigeon droppings. A special respirator would need to be worn.	NL - Injury/Illness - Employee Injury	
14055	Richmond, CA - Railway	5/15/2011 12:00:00 AM	Closed	Loss	Green Card, Pigeon droppings all over the Machine Shop floors and equipment. A green card was put in before #143583 and the supervisor's only corrective action was for everyone to wear dust masks which do not protect you from the fine particles of the pigeon droppings. A special respirator would need to be worn.	Green Card. There is pigeon droppings all over the Machine Shop floors and equipment. A green card was put in before #143583 and the supervisor's only corrective action was for everyone to wear dust masks which do not protect you from the fine particles of the pigeon droppings. A special respirator would need to be worn.	NL - Injury/Illness - Contractor Injury	(1) Did not understand all the Special Inspection requirements during construction, either the total # of SI or type (i.e., fill up method), (2) Decision was made to continue construction without meeting special inspection requirements (work it out later).
14055	Richmond, CA - Railway	5/15/2011 12:00:00 AM	Closed	Loss	Green HRSO Building Permit #10-04094 Non conformance	Review to support non conformance on Capital Project	Business Process	(1) Did not understand all the Special Inspection requirements during construction, either the total # of SI or type (i.e., fill up method), (2) Decision was made to continue construction without meeting special inspection requirements (work it out later).
14055	Richmond, CA - Railway	5/15/2011 12:00:00 AM	Closed	Loss	Green HRSO Building Permit #10-04094 Non conformance	Review to support non conformance on Capital Project	Quality	(1) Loss of BLS in the month of April Why? 01 Adjusted BLS out of inventory Why? Book to physical inventory was Why? Product wasn't returned to Leather mix Root cause: Operator chose not to return product to Leather mix process
14155	Richmond, CA - Railway	5/17/2011 10:00:00 AM	Closed	Loss	April Last C Report indicated a net loss of 115 BLS.	During the Month of April RLP WHS indicated out 115 BLS.	Operational Process/procedures	(1) Customer short product why? Lead wasn't checked before shipping why? Operator product was taken from Root Cause: Operator choose not to follow General shipping process
14171	Richmond, CA - Railway	5/15/2011 8:00:00 AM	Closed	Loss	Customer complaint		Business Process	
14178	Richmond, CA - Railway	5/12/2011 5:45:00 AM	Closed	Near Loss	Green Card, Traffic does not follow the posted speed limit. Location: Center St. by Bldg 216	Green Card. The traffic does not follow the posted speed limit. Location: Tech Center area on Center St by Bldg 216	NL - Transportation - Personal Use	
14178	Richmond, CA - Railway	5/12/2011 5:45:00 AM	Closed	Near Loss	Green Card, Traffic does not follow the posted speed limit. Location: Center St. by Bldg 216	Green Card. The traffic does not follow the posted speed limit. Location: Tech Center area on Center St by Bldg 216	NL - Transportation - Contractor	
14178	Richmond, CA - Railway	5/12/2011 5:45:00 AM	Closed	Near Loss	Green Card, Traffic does not follow the posted speed limit. Location: Center St. by Bldg 216	Green Card. The traffic does not follow the posted speed limit. Location: Tech Center area on Center St by Bldg 216	NL - Transportation - Company	
14184	Richmond, CA - Railway	5/15/2011 11:00:00 AM	Closed	Near Loss	Green Card - Contractors working without proper safetytags	Green Card. The contractors working on the wiring of the Main Gate guard check were obstructing the way with their equipment, signs, barriers, or flag person. One contractor up on the slipender the way in the lead way was exposed to a fall hazard if the ladder was bumped or clipped by passing vehicles.	NL - Injury/Illness - Contractor Injury	
14189	Richmond, CA - Railway	5/15/2011 12:00:00 PM	Closed	Near Loss	EE felt dizzy and the EMTs were called to evaluate. EMTs were called to clinic and released.	CVA. Employee felt dizzy and the EMTs were called to evaluate. The Employee was taken to the clinic for further evaluation and subsequently released.	NL - Injury/Illness - Employee Injury	
14189	Richmond, CA - Railway	5/15/2011 12:00:00 PM	Closed	Near Loss	EE felt dizzy and the EMTs were called to evaluate. EMTs were called to clinic and released.	CVA. Employee felt dizzy and the EMTs were called to evaluate. The Employee was taken to the clinic for further evaluation and subsequently released.	NL - Injury/Illness - Employee Injury	

14236	Richmond, CA - Refinery	5/16/2011 3:30:00 PM	Closed	Near Loss	Unauthorized Cymus Voyager discharge of crude oil to two tanks at same time instead of only one	(MOV) on fill line at T-3105 and re-opened it on same fill line at T-3100 to begin discharge of AXL crude oil to T-3102. Ship started this discharge at 15:15 to T-3100 and got to normal fill rate of 46,000 BPH. After night shift arrived and received the day crew turnover at 17:30, the new Board Operator noticed on computer that T-3105 had +1000 BPH flow into it when it should have been still. There was 2100 bbls of AXL code that had been moved to T-3105 during the ship discharge to T-3100 and T-3105 tank block MOV was noticed by the night Board Operator. The tank gauge on T-3100 was broken and the outside gauge filed a Letter of Protest.	ML-Quality - Product Mls-Delivery	(1) Motor valve did not close all the way during line switch to accommodate a ship discharge. (2) Day shift Board Operator got two separate audible alarms of unexpected movement on T-3105. He acknowledged the alarms, reviewed the tank status on computer. Thinking the alarm was false, but did not notify Area Operator.
14238	Richmond, CA - Refinery	5/16/2011 8:00:00 AM	Closed	Near Loss	Green Card. Near miss at non-Chevron facility prompted question about chain valves. Thanks to whoever turned in this Green Card - it's a good question to raise (ABAE).	Green Card. Near miss at other non-Chevron facility prompted question about chain valves. Thanks to whoever turned in this Green Card - it's a good question to raise (ABAE).	ML-Lessons Learned	(1) The employee was in a hurry and didn't take the time to review their position relative to potential obstacles. Why were they in a hurry - they didn't see the vehicle when they expected it to be so they were searching for it & running late for their meeting. Why were they running late - because they had tried to complete one final task before leaving for their meeting.
14270	Richmond, CA - Refinery	5/19/2011 12:55:00 PM	Closed	Loss	Employee hit elbow on car side mirror.	While between two cars and turning, an employee's elbow came into contact with the side mirror of an adjacent vehicle.	Injury/Illness	(1) Driver was to close to the exit gate post. Did not appear to pull far enough away from the gate when he moved the vehicle, thus resulting in the vehicle mirror being broken and the passenger door being scratched and dented through slight contact with the gate post.
14347	Richmond, CA - Refinery	5/19/2011 8:10:00 PM	Closed	Loss	PPS Security Officer struck gate pole on exit side of 31 gate parking lot, damaging passenger side mirror and scratching paint on contractor vehicle. No damage to CVX Property.	PPS Security Officer made contact with the gate pole on exit side of 31 gate parking lot, damaging passenger side mirror, scratching paint and slightly denting passenger door on contractor vehicle while driving out of the 31 gate parking lot. There were no injuries and no damage to CVX Property.	Transportation	(1) Driver was to close to the exit gate post. Did not appear to pull far enough away from the gate when he moved the vehicle, thus resulting in the vehicle mirror being broken and the passenger door being scratched and dented through slight contact with the gate post.
14347	Richmond, CA - Refinery	5/19/2011 8:10:00 PM	Closed	Loss	PPS Security Officer struck gate pole on exit side of 31 gate parking lot, damaging passenger side mirror and scratching paint on contractor vehicle. No damage to CVX Property.	PPS Security Officer made contact with the gate pole on exit side of 31 gate parking lot, damaging passenger side mirror, scratching paint and slightly denting passenger door on contractor vehicle while driving out of the 31 gate parking lot. There were no injuries and no damage to CVX Property.	ML-Transportation - Contractor	(1) Driver was to close to the exit gate post. Did not appear to pull far enough away from the gate when he moved the vehicle, thus resulting in the vehicle mirror being broken and the passenger door being scratched and dented through slight contact with the gate post.
14347	Richmond, CA - Refinery	5/19/2011 8:10:00 PM	Closed	Loss	PPS Security Officer struck gate pole on exit side of 31 gate parking lot, damaging passenger side mirror and scratching paint on contractor vehicle. No damage to CVX Property.	PPS Security Officer made contact with the gate pole on exit side of 31 gate parking lot, damaging passenger side mirror, scratching paint and slightly denting passenger door on contractor vehicle while driving out of the 31 gate parking lot. There were no injuries and no damage to CVX Property.	Equipment/Property Damage	(1) Driver was to close to the exit gate post. Did not appear to pull far enough away from the gate when he moved the vehicle, thus resulting in the vehicle mirror being broken and the passenger door being scratched and dented through slight contact with the gate post.
14445	Richmond, CA - Refinery	5/22/2011 10:00:00 AM	Closed	Near Loss	Oil spill in HNF Analyzer Shiller.	Let seals for the melting pump on the viscously bath, causing about 10 gallons of oil to spill on the floor of the analyzer shiller.	ML-Environmental - Spill	(1) Pump seals failed because of lack of PM's
14460	Richmond, CA - Refinery	5/23/2011 1:00:00 PM	Closed	Near Loss	Additive Injection SPD during cargo export	Additive Injection system SPD due to increased LFO set up for control system. Export was started with the additive tank with 100% LFO when the tank hit 18% the control system shutdown the additive pump. LFO went to fill was re-filled. There were no injuries and no damage to CVX Property.	ML-Quality - Additive Injection (m)	
14465	Richmond, CA - Refinery	5/23/2011 3:00:00 PM	Closed	Near Loss	A small amount of product leaked out of some pipe that had been transported from RDC to Redhibition.	After transporting various sections of pipe which was removed from RDC and then to Redhibition, a small amount of product leaked onto the ground where the pipe was being laid. The pipe had been cleaned, drained, sealed for LEL's and tagged prior to being moved. The pipe was picked up at the end of the pipe area and tested for benzene. Test results indicated approximately 0.5 ppm benzene from about 5' away from the leak. Later tests showed no potential for exposures at the source.	ML-Environmental - Spill	(1) SDS, Training & Procedures. Spill to soil from removed piping, residual liquid in tail pipe, Prep. York did not address low points in lines, terminals, flash water, etc.
14519	Richmond, CA - Refinery	5/24/2011 1:30:00 PM	Closed	Near Loss	Green Card - Oiler ISSA	Green Card - During T-3100 turnaround activities, odors described as pungent were reported by CRD while passing through area. Area had a vac bucket & centrifuge running while tank was opened for cleaning.	ML-Environmental - Release	
14526	Richmond, CA - Refinery	5/18/2011 8:00:00 AM	Closed	Near Loss	Green Card. Floor Monitor List needs to be updated.	Green Card. Floor Monitor List needs to be updated in Admin Bldg.	ML-Lessons Learned	
14527	Richmond, CA - Refinery	5/18/2011 8:00:00 AM	Closed	Near Loss	Green Card. Put Green Card Station on First Floor of Admin Bldg.	Green Card. Put Green Card Station on First Floor of Admin Bldg.	ML-Lessons Learned	
					A Quality Control Operator on A Crew was sent to the clinic after complaining of pain in shoulder. She was transferring milk crate baskets full of bottles of	A Quality Control Operator on A Crew was sent to the clinic after complaining of pain in shoulder. She was transferring milk crate baskets full of bottles of		

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Richmond, CA - Refinery	5/26/2011 10:00:00 AM	Closed	climb after complaining of pain in shoulder while moving crates of samples.	sample material from inside the X-ray laboratory to the outside porch. She lifted the crate weighing 32 lbs., walked 10 feet with the crate, then lifted the crate to a shelf 3'6" from the floor.	NL-Injury/Illness - Employee Injury	(1) An effort to sustain clear walkways in the Lab Porch area led to QCC employees storing the crates on a ledge higher than wall level.
Richmond, CA - Refinery	5/24/2011 1:00:00 PM	Closed	RTD driver did not secure piping pump on back of truck.	Driver did not secure P-2829A inline pump on truck prior to driving away from the Crane Bay which resulted in the pump falling over which damaged some tubing on the repacked serviceable pump. The tubing was replaced, the pump released and sent out same day.	Equipment/Property Damage	(1) Failure to properly secure load to truck
Richmond, CA - Refinery	5/26/2011 8:30:00 AM	Near Loss	Moving respirator canister was almost used for the hazard.	A North Defender Canistered Next75SCP100 was almost used when testing metal for mercury hazards. A North canistered Next75S0032 is required for mercury.	NL-Lesson Learned	(1) EE did not fully understand the hazard
Richmond, CA - Refinery	5/26/2011 12:30:00 AM	Closed	QCD Refinery Services truck backed into car.	QCD Operator backed the truck into a parked car.	Equipment/Property Damage	(1) Person was trained and very experienced but needed additional training on dealing with vehicles in his blind spot. (2) Driver neglected to make sure areas was clear before backing out of parking
Richmond, CA - Refinery	5/25/2011 12:00:00 AM	Closed	QCD Refinery Services Truck backed into car.	QCD Operator backed the truck into a parked car.	Transportation	(1) Person was trained and very experienced but needed additional training on dealing with vehicles in his blind spot. (2) Driver neglected to make sure areas was clear before backing out of parking
Richmond, CA - Refinery	5/26/2011 4:00:00 PM	Closed	Contractor worker feeling ill at T-3104 Tank Cleaning Job Worker released back to work by clinic.	Worker feeling ill and reported to safety red hat that he had a rash. Worker released back to work by clinic.	Injury/Illness	(1) Liquid Alve not made to be atomized. A Nalco replacement has been found. (2) possible that liquid alve may have caused the irritation, but not conclusive. An alternate chemical will be substituted for the mitigation of odors. (3) Liquid Alve not meant to be atomized
Richmond, CA - Refinery	5/27/2011 10:00:00 AM	Closed	Improper use of and potential exposure to carbon disulfide solvent.	FCC lab operator potentially exposed to carbon disulfide. On 5/27, a QCD engineer used their shop work authority to prevent the further use of a solvent, carbon disulfide, which is used to clean the job gas chromatograph. The chemical was improperly labeled, handled and stored. Additionally, the solvent was being used in equipment not designed for this particular solvent. The MSDS classify this product as a severe health and contact hazard and requires the use of specialized PPE when handled. The area operator was not aware of the these requirements and was not using the required PPE.	NL-Quality - Incomplete Product - Incomplete	(1) Previous QCD Chemical brought carbon disulfide into FCC lab. It was found that it was not an MOC or RI-S313 new chemical requested had been realized, the issue would have been detected and the problem averted.
Richmond, CA - Refinery	5/28/2011 7:00:00 PM	Closed	K-830 routed to both clean H2 and Rheniformer H2 causing combining of dirty and clean hydrogen.	At approximately 18:00 on 5/28/11, South Isomex operations found K-830 L4 and 2nd stage discharge were open to both clean H2 and Rheniformer Hydrogen. As a result, the Rheniformer H2 had been contaminated with the Rheniformer H2.	NL-Quality - Product Contamination (In)	(1) Why was K-830 discharge open to both clean and dirty H2? (2) Why did the operator operate clean side for too long without realizing they had the wrong valve? (3) Why did the operator forget to close clean side isolation valve? What working HO job and gas discharged with other Plant issues.
Richmond, CA - Refinery	5/28/2011 3:50:00 PM	Closed	V-1900 gassed out causing the FCC flares catching to trip.	K-1910, the adductor for V-1950 in RICOP stayed open when the vessel was empty. LC-003 connects the adductor, and this incident got stuck at 2%. This caused V-1950 to briefly gas out, sending process gas to FCCR causing flow to the FCC flare.	NL-Environmental - Release	(1) Why did the FCC Flare Totalizer trip? Because FCCR could not handle all the gas flow. Why was FCCR not able to handle V-1900 gassed out, sending process gas to FCCR. Why did V-1900 gas out? LT-003 tripping up at 2% when level went to 0%.
Richmond, CA - Refinery	5/28/2011 3:00:00 PM	Closed	Operator reported soreness and swelling in her right wrist.	Operator heard and felt a "pop" in their right wrist while trying to break free a backwash valve on a Calgon GAC vessel. The operator claims to have experienced an initial sharp pain that went away. The operator was able to continue working with continued slight discomfort but without swelling or range-of-motion issues and thought it would be forgotten about by morning. The operator did not report the injury to anyone and left at the conclusion of their shift. The injury was not disclosed until the start of the operator's next shift four days later.	Injury/Illness	(1) Human Factor
Richmond, CA - Refinery	5/28/2011 11:00:00 AM	Closed	Lube oil piping replacement on K-1070 was installed replicated with galvanized pipe when it should be carbon steel.	K-1070 lube oil piping modifications were being executed to support the control panel cover work. The piping contractor fabricated the galvanized piping per the DED EMO and was about to install it when the Chevron construction rep used pause work authority to raise a concern about galvanized piping being installed on a lube oil system. The correct piping is carbon steel. The loss is financial due to re-work, the piping contractor had to order new materials and additional man-hours were required to complete the job.	Business Process	(1) What: Engineer specified the incorrect pipe class, and supervisor review missed the mistake. Why: Engineer was unaware of the requirements specific to lube oil piping - ie no galvanized pipe.
Richmond, CA - Refinery	5/30/2011 3:05:00 AM	Closed	FCC opacity violation.	FCC attack opacity occurred when K-138, TR seal B-3 tipped off line.	Environmental	(1) Control board failed
Richmond, CA - Refinery	5/28/2011 6:00:00 PM	Near Loss	Flare Gas Recovery discharge line to HZDS plugged.	Shortly after RI-CPR, V-1900 gassed out causing a firing event, the pressure in Flare Gas Recovery went up. Originally it was thought the indication for FGR E-1051/E-1052 were plugging up, so operations started to water wash them. It was then discovered that 2nd stage discharge pressure had increased from 127 psig to 145 psig. Operations determined V-1052 overhead line to HZDS was plugging up.	NL-Operational Processes/Procedures - Safe Operating Limit (SOL) Exceeded	(1) Why did the overhead line from V-1052 to HZDS plug? PED believes it was ammonium hydrosulfide salt deposits formed from ammonia, H2S, and water that are present in recovered flare gas.

15037	Richmond, CA - Refinery	6/23/2011 6:45:00	Closed	Near Loss	Motor Dripped by RTD Forklift	the first pallet. The second pallet contained a 75 HP motor. When the forks were raised and the forklift was backing up, the motor was unintentionally moved. Because of the partial pallet engagement, when the motor reached the end of the platform, it flipped 180 degrees falling approximately 3'.	NL - Equipment/Property Damage - Equipment	(1) Pallet practice to not have pallets back to back and did not get off forklift to check
15067	Richmond, CA - Refinery	6/23/2011 10:55:00	Closed	Loss	Mechanic was moving a pallet when a popping was felt in his lower back causing discomfort in his legs. Mechanic was taken to the clinic for evaluation	(1) possible muscle fatigue		
15064	Richmond, CA - Refinery	6/29/2011 4:30:00	Closed	Loss	Environmental On-Call lost paper in office park and it was not recovered.	(1) inadequate training and turnover procedure for Environmental On-Call personnel, (2) Lack of communication or expectations.		
15085	Richmond, CA - Refinery	6/18/2011 12:00:00	Closed	Near Loss	Tearing Ropeclimber #2 was working	Equipment/Property Damage		
15100	Richmond, CA - Refinery	6/18/2011 10:00:00	Closed	Near Loss	Material required was 347 SS and when PMJ was done it was 321 SS, also material was stamped 321 SS	NL -Business Process -Business Interruption		
15175	Richmond, CA - Refinery	6/12/2011 3:00:00	Closed	Near Loss	Possible back injury	NL-Injury/Illness - Employee Injury		
15223	Richmond, CA - Refinery	6/21/2011 12:00:00	Closed	Near Loss	Keys left in lock in while unattended	(1) Five Why's : Operator needed to use the rest room, he drove the forklift to the rest room and failed to remove the keys prior to using the rest room. Why? Operator was focused on another task and did not take the time to remove the keys. Why? Doing the job according to procedures or acceptable practices takes more time / effort to remove keys from lock in Root cause : Personal Behavior		
15252	Richmond, CA - Refinery	6/22/2011 9:00:00	Closed	Near Loss	Green Card - Report of equipment being placed in service before MOC complete	NL -Business Process -Business Process		
15255	Richmond, CA - Refinery	6/12/2011 8:00:00	Closed	Near Loss	Green Card - reports that MOC process is being short cut	NL -Business Process -Business Process		
15302	Richmond, CA - Refinery	6/28/2011 12:00:00	Closed	Near Loss	CME monthly report delay. Troubleshooting application	NL -Business Process -Business Interruption		(1) The error message was isolated but the root cause was not determined. The error was tracked down to a material code which had a few sub properties that were not defined.
15314	Richmond, CA - Refinery	4/20/2011 12:00:00	Closed	Near Loss	Unit of Measure on 2 carbon orders were entered manually incorrectly into SAP.	NL -Business Process -Business Process		(1) Why was the unit of measure in SAP incorrect? These were new cartons and the contract was not updated in SAP. Why? Procurement was pending a response from vendor. Why? due to being a new item, so the purchaser had to enter the order manually in SAP, but did not review entry. Why? This is not an every day actions and it takes more time and effort.
15314	Richmond, CA - Refinery	4/20/2011 12:00:00	Closed	Near Loss	Unit of Measure on 2 carbon orders were entered manually incorrectly into SAP.	NL -Business Process -Business Process		(1) Why was the unit of measure in SAP incorrect? These were new cartons and the contract was not updated in SAP. Why? Procurement was pending a response from vendor. Why? due to being a new item, so the purchaser had to enter the order manually in SAP, but did not review entry. Why? This is not an every day actions and it takes more time and effort.
15321	Richmond, CA - Refinery	5/17/2011 12:00:00	Closed	Near Loss	Reliable monitoring and reporting of the Refinery KPI's Energy Intensity Index and Utilization calculation tags. SAP/ERP and Utilization tags were degraded and refinery production team VIP stakeholders were concerned.	NL -Business Process -Business Interruption		(1) Investigation is incomplete and no root cause has been
15321	Richmond, CA - Refinery	5/17/2011 12:00:00	Closed	Near Loss	Reliable monitoring and reporting of the Refinery KPI's Energy Intensity Index and Utilization calculation tags. SAP/ERP and Utilization tags were degraded and refinery production team VIP stakeholders were concerned.	NL -Business Process -Business Interruption		(1) Investigation is incomplete and no root cause has been
15321	Richmond, CA - Refinery	5/17/2011 12:00:00	Closed	Near Loss	Reliable monitoring and reporting of the Refinery KPI's Energy Intensity Index and Utilization calculation tags. SAP/ERP and Utilization tags were degraded and refinery production team VIP stakeholders were concerned.	NL -Business Process -Business Interruption		(1) Investigation is incomplete and no root cause has been

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15338	CA - Richmond Refinery	12/20/00 PM	Closed	Near Loss	F-305 Slack Damper Trip due to heavy rains	opened all 4 slack dampers to 100%. If the draft indications had gone higher than 4.5, the furnace would have gone to Min Fire.	Process/Procedures - Safety Systems	Identified. The ABU has decided to close the investigation and continue to track this issue via the CERRI database
15369	CA - Richmond Refinery	6/5/2011 10:10:00 PM	Closed	Near Loss	Last Radio Communication		NL - Business Process Interruption	
15447	Richmond CA - Refinery	6/6/2011 4:30:00 PM	Closed	Loss	K-950/950 H2 booster compressor shutdown on 1st stage knock-out pot V- 913 high level trip	At 4:30 PM 6/6/2011 K-950 and K-980 tripped on 1st stage knock-out V-913 high level SID. The outside operator first on the scene noticed the 2 independent level indicators reading 16.7% and 20.2% respectively 631.6/13 and 631.9/13. The High Level SID float chamber was drained and about a cup of water was observed. The High level shutdown was still active at that time when the operator began to unscrew the top of the float chamber alarm mechanism when the SID alarm cleared. The compressors would not restart until the High level shutdown alarm was bypassed. There is a time limit on the SID permissives that ceases in 1 hour. The high level SID bypass will stay in bypass until we get the permissives back. Operations is continuously monitoring the 2 independent level indicators until then.	NL - Operational Process/Procedures - Plant Run Out/Slow Down	(1) V-913 high level trip SID K-950/980. Due to Attraction Sleeve on Shutdown switch being stuck at the top of its enclosing tube.
15466	Richmond CA - Refinery	6/6/2011 11:30:00 AM	Closed	Near Loss	Inbound from SAS Houston to Richmond was over weight	Order #607988, an inbound from SAS Houston to RLP was entered 5/23/11, with seven different products on it, equaling 20 total pallets and weighing 43,252 lbs. This inbound is an intermodal shipment from SAS that was assigned to JB Hunt Transportation to pick up and deliver. JB Hunt picked this order up around 10am and headed to the scales to check the loads weight. It was found that this load was about 1,000 lbs overweight for California regulations, but not Texas. Due to this order being overweight, JB Hunt had to take the load back to SAS and re work it. It was the understanding of the purchaser that loads could be up to, but no more than 44,000 lbs, but this is not the case.	NL - Lessons Learned	(1) Why truck was over weight? Order was placed for too much weight: 43,000 lbs vs. the required maximum of 42,500 lbs. Why? Always placed order by the no. of pallets in the past. Why? Was not familiar with State weight regulations. Why? It is not specified in the work instructions.
15468	Richmond CA - Refinery	6/6/2011 11:30:00 AM	Closed	Near Loss	Inbound from SAS Houston to Richmond was over weight	Order #607988, an inbound from SAS Houston to RLP was entered 5/23/11, with seven different products on it, equaling 20 total pallets and weighing 43,252 lbs. This inbound is an intermodal shipment from SAS that was assigned to JB Hunt Transportation to pick up and deliver. JB Hunt picked this order up around 10am and headed to the scales to check the loads weight. It was found that this load was about 1,000 lbs overweight for California regulations, but not Texas. Due to this order being overweight, JB Hunt had to take the load back to SAS and re work it. It was the understanding of the purchaser that loads could be up to, but no more than 44,000 lbs, but this is not the case.	NL - Business Process Abnormal Freight	(1) Why truck was over weight? Order was placed for too much weight: 43,000 lbs vs. the required maximum of 42,500 lbs. Why? Always placed order by the no. of pallets in the past. Why? Was not familiar with State weight regulations. Why? It is not specified in the work instructions.
15490	Richmond CA - Refinery	5/26/2011 8:55:00 AM	Closed	Near Loss	Inbound from SAS Houston to Richmond was over weight	Order #607988, an inbound from SAS Houston to RLP was entered 5/23/11, with seven different products on it, equaling 20 total pallets and weighing 43,252 lbs. This inbound is an intermodal shipment from SAS that was assigned to JB Hunt Transportation to pick up and deliver. JB Hunt picked this order up around 10am and headed to the scales to check the loads weight. It was found that this load was about 1,000 lbs overweight for California regulations, but not Texas. Due to this order being overweight, JB Hunt had to take the load back to SAS and re work it. It was the understanding of the purchaser that loads could be up to, but no more than 44,000 lbs, but this is not the case.	NL - Regulatory Compliance - Non Weight & Measures	(1) Why truck was over weight? Order was placed for too much weight: 43,000 lbs vs. the required maximum of 42,500 lbs. Why? Always placed order by the no. of pallets in the past. Why? Was not familiar with State weight regulations. Why? It is not specified in the work instructions.
15490	Richmond CA - Refinery	5/26/2011 8:55:00 AM	Closed	Near Loss	Green card - SUV ran stop sign in front of Tech Center	Green card - SUV leaving Tech Center parking lot rolled through stop sign and cut in front of me on way to main gate as I was turning left to enter lot.	NL - Injury/Illness - Employer Injury	
15592	Richmond CA - Refinery	6/7/2011 8:15:00 AM	Closed	Near Loss	Green Card - Contractor truck had frontal tire Location: 214 Main	Green Card - Driving behind a contractor's truck, had low/high tire on rear left side. His rear window was fogged with morning dew, he could not see me directly. Location: 214 Main	NL - Lessons Learned	
15590	Richmond CA - Refinery	5/9/2011 3:00:00 PM	Closed	Near Loss	Wireless gateway stopped communicating	Gateway stopped transferring data to the wireless system data coming into it was not available during this time.	NL - Business Process Interruption	
15595	Richmond CA - Refinery	6/6/2011 12:00:00 AM	Closed	Near Loss	MVC Mechanic backed company truck into parked lot	Mechanic leaving #3 District maintenance area backed into a truck parked at the IMI building.	NL - Equipment/Property Damage - General Liability	
15705	Richmond CA - Refinery	6/6/2011 10:00:00 AM	Closed	Near Loss	Green Card - Gas leaking for Vehicle Entry into Flares	Green Card - While conducting a LOTO audit, auditors also noticed a potential issue with vehicle entry into operating units. RI-341 (under non-open flame permit) says vehicles can enter & leave the plant work-site without drains within 50 lbs being covered as long as they are escorted by an operator with a gas tester.	NL - Fire/Explosion	

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16705	Richmond CA - Refinery AM	6/8/2011 12:00:00	Closed	Near Loss	Green Card - Gas leaking for Vehicle Entry into Plants	Issues with vehicle entry into operating units. RI-341 (under non-open flame permits) says vehicles can enter & leave the plant work-site without drains within 50 feet being covered as long as they are escorted by an operator with a gas tester.	NL-Business Process -Business Process	
16709	Richmond CA - Refinery AM	6/9/2011 10:00:00	Closed	Near Loss	Green Card - Gas leaking for Vehicle Entry into Plants	Green Card - While conducting a LOTO audit, auditors also noticed a potential issue with vehicle entry into operating units. RI-341 (under non-open flame permits) says vehicles can enter & leave the plant work-site without drains within 50 feet being covered as long as they are escorted by an operator with a gas tester.	NL-Injury/Illness - Employee Injury	
15705	Richmond CA - Refinery AM	6/8/2011 10:00:00	Closed	Near Loss	Green Card - Gas testing for Vehicle Entry into Plants	Green Card - While conducting a LOTO audit, auditors also noticed a potential issue with vehicle entry into operating units. RI-341 (under non-open flame permits) says vehicles can enter & leave the plant work-site without drains within 50 feet being covered as long as they are escorted by an operator with a gas tester.	NL-Injury/Illness - Contractor Injury	
15709	Richmond CA - Refinery AM	6/10/2011 5:30:00	Closed	Near Loss	RLOP started up on 3166 getting a rate of 350 gph needed 450 to reach minimum rate. Discovered AOV 108 not fully open	RLOP had to down grade protection for an hour until the target rate could be achieved. Started RLOP at CDBO feed at about 3am. Rate increased to 350gph. Received a call from RLOP at 4:30am saying they needed a higher feed rate. Walked out time and found AOV 108 in the field. It looked not fully opened. Stoked air to valve until heard flow increase. Feed rate increased to 500gph to meet flow required.	NL-Operational Process/Procedures - Plant Run Outflow Down	(1) Air Operated valve not fully opened
15709	Richmond CA - Refinery AM	6/10/2011 11:00:00	Closed	Loss	Employees was driving on Quarry Rd., hit a ballast while turning	Damage to left front panel of truck	Transportation	(1) Lack of attention to work area
15709	Richmond CA - Refinery AM	6/10/2011 11:00:00	Closed	Loss	Employees was driving on Quarry Rd., hit a ballast while turning	Damage to left front panel of truck	Equipment/Property Damage	(1) Lack of attention to work area
15604	Richmond CA - Refinery AM	5/24/2011 11:50:00	Closed	Loss	While loading drums on pallets doubled stacked, side wall of trailer was damaged	Operator purchased hole in side of trailer. Contractor inspected trailer before loading and saw no damage. Loading requirement was a staggered pattern with drums against wall going left to right through out trailer. All drums were in good condition with no leaks or damaged to product. The loss is that there was damage to side wall of trailer.	Equipment/Property Damage	(1) Side wall of trailer was damaged Why? Contractor loading drums into trailer clipped the side wall support. Why? Came at too sharp at an angle. Why? Used the wrong method for positioning pallet on floor of trailer as operator has done in the past Why? Dotted platform thorough enough LP&A.
15604	Richmond CA - Refinery AM	6/9/2011 9:40:00	Closed	Near Loss	Green card - encountered driving wrong way at Castro to Chevron Way	Green card - I was turning right from Castro to Chevron Way and encountered a car on Chevron Way facing the wrong way (facing Castro). This is the second time I've this happen	NL-Injury/Illness - Contractor Injury	
15604	Richmond CA - Refinery AM	6/9/2011 9:40:00	Closed	Near Loss	Green card - encountered driving wrong way at Castro to Chevron Way	Green card - I was turning right from Castro to Chevron Way and encountered a car on Chevron Way facing the wrong way (facing Castro). This is the second time I've this happen	NL-Injury/Illness - Employee Injury	
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16098	Richmond, CA - Refinery	6/13/2011 8:51:00 AM	Closed	Near Loss	Product physically loaded on bulk truck but, processed complete in the system at zero.	Bulk truck order# 242392 for Ec Stande & Sons Petroleum was scheduled to load 1,453 gallons from H2S, 8711 at 7am and a full 2,000 gal of the City Blend H2S was loaded. 3,497, 4203 of the City Blend H2S was loaded and 1,453 gal of the City Blend H2S was loaded. The City Blend H2S was loaded (220013390) was completed at zero, which means the 1,453 gal loaded did not get deducted from inventory. The paper work reflected that the customer was going to receive zero and get billed for zero.	Nt-Quality - Paperwork - Incorrect/Not Sent	(1) Paperwork was incorrect and was not verified by terminating operator before it was issued to driver/customer. Why? Operator or THO manually keyed differing amount from the actually transaction, he could have left OUS automatically enter number time invoice. Why? Operator did not know his important duties giving it to the driver. Why? Operator was in a hurry to get the truck out of the yard and get the driver going so there would be no demerits for the driver. Why? Operator chose production over accuracy.
16027	Richmond, CA - Refinery	6/14/2011 3:00:00 PM	Closed	Loss	exposure to fumes	2 Mistars Technicians were setting up rigging on the wind Glider of T-3187 were exposed to sulfur fumes which made them light headed	Injury/Illness	(1) SOG: Training & Procedures: Workers Exposed to Fumes: Workers were on top of T-3187. Workers were unaware of possible H2S (sulfur) gases venting out of the tank. No JHSV completed. (2) SOG: Training & Procedures: Workers Exposed to Fumes: Fumes (gases) vented out of vacuum breaker pressure relief (vent) on tank (top). Hot ambient temperatures from heat of the day contributed to emissions from tank vents.
16098	Richmond, CA - Refinery	6/16/2011 11:45:00 AM	Closed	Near Loss	Pail palletizer control stuck by mobile equipment.	I was troubleshooting an equipment fault on the pail palletizer when I discovered that an electrical conduit broke on the side of the palletizer had been struck, probably by a forklift. The outside conduit is bent inward and no longer properly clamped and will have to be replaced.	Nt-Equipment/Property Damage - General Usability	
16104	Richmond, CA - Refinery	6/16/2011 11:15:00 PM	Closed	Loss	Employee possibly started his left knee and back	A crew of two employees were moving furniture and office materials from Central Maintenance to 214 Main St. While waiting for the other Co-worker to bring out some boxes that needed to go to a warehouse, the other worker lowered the lift gate of the truck to the ground. As the worker exited the building he called the other worker name causing him to turn around. As he turned, the employee felt a pain in his left knee and lower back. Because his tool was up against the lift gate, it restricted his range of motion possibly causing a strain.	Injury/Illness	(1) Employee made a normal turn to look backwards after another employee called his name.
16191	Richmond, CA - Refinery	6/18/2011 1:35:00 PM	Closed	Near Loss	Operator's H2S monitor alarmed	Operator's H2S monitor went off while he was opening the hatch on the reactor's H2S separator.	Nt-Operational Process/Procedures - Safe Operating Limit (SOL) Exceeded	(1) Operations is too close to the listings when inspecting the liquid level in the separator. They must put themselves in the line of fire to open the lid.
16198	Richmond, CA - Refinery	6/18/2011 10:00:00 PM	Closed	Near Loss	K-930 Shutdown due to Lube oil leak	On 6/18 nightshift operations noticed a leak on K-931 Lube oil filter housing drain line for K-930 booster compressor. When alerted as a minor leak continued to get worse and became a steady stream. Ops attempted once to move the in drain line carefully. In a lightning movement and saw the leak get slightly worse. This filter housing is not isolatable from the lube oil system so a steady worsening leak would eventually cause a compressor shutdown and possible damage to the machine. The decision was made to move as much load as possible to the available compressors and shutdown K-930. The compressor is S/D and depressured at this time and the lube oil system is shutdown. TRN cut 2MBPD feed as a result of the loss of K-930	Nt-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Personnel factors - doing the job according to acceptable practice takes more time / effort
16199	Richmond, CA - Refinery	6/18/2011 10:00:00 PM	Closed	Loss	Burn top of hand with wash down hose	Operator during washing down the plant he had to walk through some staging and as he pulled the hose he pressed the trigger to wash down hose it went off and hit the top of his hand and it burned him	Injury/Illness	(1) Personnel factors - doing the job according to acceptable practice takes more time / effort
16199	Richmond, CA - Refinery	6/18/2011 10:00:00 PM	Closed	Loss	Burn top of hand with wash down hose	Operator during washing down the plant he had to walk through some staging and as he pulled the hose he pressed the trigger to wash down hose it went off and hit the top of his hand and it burned him	Nt-Injury/Illness - Employee Injury	(1) Personnel factors - doing the job according to acceptable practice takes more time / effort
16238	Richmond, CA - Refinery	6/19/2011 6:30:00 AM	Closed	Near Loss	Green Card - Tech Center Near Stairwell Lights Not Working	Green Card - Tech Center Stairwell Lights Not Working Employee came in on a Sunday to do a few hours of work. They normally take the stairs. After walking up a flight, the door behind them closed and they realized that the motion detector lights had not come on. The employee held the hand-rail and slowly walked back down the stairs.	Nt-Injury/Illness - Employee Injury	
16238	Richmond, CA - Refinery	6/18/2011 9:30:00 AM	Closed	Near Loss	Green Card - Tech Center Stairwell Lights Not Working	Green Card - Tech Center Stairwell Lights Not Working Employee came in on a Sunday to do a few hours of work. They normally take the stairs. After walking up a flight, the door behind them closed and they realized that the motion detector lights had not come on. The employee held the hand-rail and slowly walked back down the stairs.	Nt-Injury/Illness - Employee Injury	
16277	Richmond, CA - Refinery	6/17/2011 8:00:00 AM	Closed	Near Loss	MOV on valve damaged	Upon removing plastic from around a valve and MOV from Tank 5104 at the hydroblast cart the head shied causing the valve to fall, landing on the MOV, causing damage. Fortunately this assembly was designated for scrap.	Nt-Equipment/Property Damage - Equipment Damage	
16284	Richmond, CA - Refinery	6/20/2011 8:00:00 AM	Closed	Loss	EE REMODING HAZ WASTE EXTERIOR OFFICE ACCIDENTLY CUT COMMUNICATION LINE IN WALL	EE CUTTING BASE PLATE OF EXTERIOR WALL AT THE STUD NOTICED THE ELECTRICAL WIRE RUNNING PARALLEL TO STUD DID NOT KNOW WIRE RAN UNDER PLATE AND PLYWOOD. WIRE WAS CUT BY SAW/SALL.	Equipment/Property Damage	(1) ee failed to use stop work or pause work to follow where the communication line could go. ee's felt they needed to get noisy part of the job done so they would not disturb workers inside of office.

18285	Richmond, CA - Refinery	6/20/2011 9:00:00 AM	Closed	Loss	Anna Victoria @ Bath 1 had a faulty O2 sensor that created a rich burn in the IGS boiler. After changing the sensor out, the IGS system was restarted, and the soot that was built up in the boiler was flushed out the overboard discharge. Carpo and IGS operators shut down the boiler immediately. There was no visible steam associated with the soot. Notification went out from Wharf and Vessel (via O'Brien's).	Anna Victoria @ Bath 1 had a faulty O2 sensor that created a rich burn in the IGS boiler. After changing the sensor out, the IGS system was restarted, and the soot that was built up in the boiler was flushed out the overboard discharge. Carpo and IGS operators shut down the boiler immediately. There was no visible steam associated with the soot. Notification went out from Wharf and Vessel (via O'Brien's).	Environmental	(1) A sensor failed creating a rich burn in the IGS boiler. After changing the sensor out, the IGS system was restarted, and the soot that was built up in the boiler was flushed out the overboard discharge.
18290	Richmond, CA - Refinery	6/20/2011 3:40:00 PM	Closed	Near Loss	68L C832 (C832) level indication topped out at 74%. The level carried over the top to V840 (K840 knock-out). The high level alarm on V840 did not activate and the level continued to rise causing K840 to shutdown.	68L C832 (C832) level indication topped out at 74%. The level carried over the top to V840 (K840 knock-out). The high level alarm on V840 did not activate and the level continued to rise causing K840 to shutdown. In an attempt to restart K-840, the level in V-840 was blown down to relief. This caused the FCC feedwater to trip.	NI-Operational Process/Procedures - Safety Systems	(1) Why did K840 trip? Liquid Level V840 and Impact High Level shutdown. Why did liquid trip the shutdown? Level overrider C832 upstream of V840 went did C832 carry over? It's level controller malfunctioned. The LC appeared to catch the level and hold at 74%, although actual level continued to rise over 100%. (2) Why did operator monitoring of C832 level not recognize potential bad reading from level controller? Operator believed moves made outside to open up on block valve downstream of suspect LV were adequate to catch the level. Operator thought LC showing level fluctuating out at 74% indicated level was under control.
18298	Richmond, CA - Refinery	6/16/2011 8:11:03 AM	Closed	Near Loss	The DWP Compliance monitor and pH probes at the DWP stack. After troubleshooting with the electricians on site, it was determined that the UPS system was receiving power from the local 120V supply, but the reason for the power was not passing through the UPS to the compliance monitor and probes that were connected to it.	At approximately 9:45 am on Saturday, 6/16, while checking on electrical maintenance work taking place in the DWP stack, operators became aware of the rise of residue from both the DWP compliance monitor and pH probes at the DWP stack. After troubleshooting with the electricians on site, it was determined that the UPS system was receiving power from the local 120V supply, but the reason for the power was not passing through the UPS to the compliance monitor and probes that were connected to it.	NI-Regulatory Compliance - Non Compliance	(1) Sidebar Issue: There is no alarm for loss of UPS common trouble communication to the 503 compliance equipment. (2) Sidebar Issues: The UPS was never configured for time / date and alarm set points. (3) Sidebar Issues: There is no loss of communication alarm to the Honeywell system. (4) Sidebar Issues: The data collector was found to not be working. There are no operator time stamps in the collected data. (5) Sidebar Issues: Both operations and maintenance have not been trained on the UPS system. (6) Sidebar Issues: There was no written JSA/VIA/Job Card/Job SJA Visit Job Hazard Analysis) done between operators and conductors for the job. (7) Sidebar Issues: The operator on the station before the day prior and had discussed the job scope with operations team. They had waited the job site as required. The next day, when the electricians came back to continue working on replacing the beacon, they again talked to operations and discussed the job for the day. The operator signed them in on the work order form but did not walk the site as there were no changes from the day prior and he'd been called to another job. Once the new beacon was in place, the operator was contacted via radio by the electricians and did arrive at the shalter to help test the new beacon. (7) Sidebar Issues: Safe work practices for isolation and release of equipment (LOTO, lock-out-tag-out procedures), were not followed, as required per Refinery Instruction RI-3608 Control of Hazardous Energy and RI-385 Electrical Safe Work Practices.
18319	Richmond, CA - Refinery	6/16/2011 12:00:30 AM	Closed	Near Loss	Lights in Warehouse 4 were on all weekend.	Warehouse 4 lights were on all weekend, doors were all locked up didn't see an obvious on/off switch.	NI-Business Process - Business Process	(1) Why was door was damaged? Why? Operators in the past used for to open door Why? Door was hard to open Why? Door Alignment was off Why? Door was in on lower bottom causing alignment to be off, why? Operator didn't look back when backing up. (note) Door was damaged over 5 years ago.
18320	Richmond, CA - Refinery	6/16/2011 12:00:00 AM	Closed	Loss	Warehouse 4 door was hit by forklift & damaged, making it difficult to open & close.	Warehouse 4 door was hit by forklift & damaged, making it difficult to open & close.	Equipment/Property Damage	
18360	Richmond, CA - Refinery	6/13/2011 7:00:03 AM	Closed	Near Loss	Green Card. Blast resistant bldg propped open with broom and Acids and bases all mixed above/below the furnace hood. Location: Cracking/FCC/Ally Lab	Green Card. Blast resistant building found to have west door propped open with broom handle in hinge area. Acid/bases all mixed above and below the furnace hood. Location: Cracking/FCC/Ally Lab	NI-Lessons Learned	(1) The 10-inch alloy deadweight was part of original plant

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10003	Richmond, CA - Refinery	6/21/2011 4:15:00 PM	Closed	Loss	R-020 outlet spool leak	TOP INVESTIGATION (see Investigation Journal or link on left for TOP description): Initial description: A high pressure hydrogen leak/release occurred at R320. Operations and the Hydro STL were aware of this leak/release, but failed to immediately report this leak/release to Chevron Fire Department (CFD) for a minimum of 20 minutes after discovery of said leak/release. If not longer, in direct conflict with RI 481, Section 5. This led to a delay in emergency response. Had the leak/release gone to catastrophic, and with the close proximity of the A Train furnace, this could have been a fire response rather than a leak/release response. (What is the worst thing that can happen?) When CFD arrived on scene, operators personnel were inside the Hot Zone Area (which Operations put up) attempting to place steam lances on the leak. The CFD were then told not to use water because of concerns of thermal shock to the hot piping, and that it may cause the pipe to fall or the "hole" to get larger. This should not be a concern in an emergency response posture when attempting to disperse vapor from an uncontrolled release of hydrogen. Furthermore, "thermal shock" has been related to be a primary concern due to the lack of evidence that it occurs by many design engineers in the past. Again, had there been a catastrophic failure, there would have been no water stream in place to disperse the hydrogen in view of the close proximity to the A Train furnace. Lastly, once high flow water had been directed toward the leak/release due to it becoming greater in noise and volume, two operators entered the Hot Zone and proceeded to climb R320 up to the first deck in an attempt to isolate a line. This was done without consent from the Incident Commander, and the two had to be quickly removed from the Hot Zone by emergency personnel. Operations personnel were upset that CFD would not let them isolate a valve within the Hot Zone, of which LEL readings were greater than 100%. Worst case scenario would have been a light-off of the hydrogen resulting in injuries and/or death.	Equipment/Property Damage	design and construction about 45 years ago. In 2010, the 4-inch elbow drain was reconfigured to a 2-inch drain made of 304SS, though it was ineffective in preventing carbonic acid corrosion at the 10' elbow. (2) The low-points of the original design were not properly maintained, and the original design may eliminate the need for a piping modification. (3) The Thickness Measurement Location (TML #24) on the failed elbow had been deactivated for several years. Past thickness monitoring could have found both the thin area prior to failure and/or characterized the corrosion rate as a short-term risk. (4) The business unit employed a minimum scope philosophy towards assessing the H2-A Train 10, 2010 T/A work list. Least-cost bare-minimum repairs were favored over long-term solutions, and limited more effective solutions from being implemented during the Feb 2010 repairs and/or 10/2010 H2-A Train T/A.
16432	Richmond, CA - Refinery	6/21/2011 4:39:00 PM	Closed	Near Loss	Hydrogen Leak at R320	TOP INVESTIGATION (see Investigation Journal or link on left for TOP description): Initial description: A high pressure hydrogen leak/release occurred at R320. Operations and the Hydro STL were aware of this leak/release, but failed to immediately report this leak/release to Chevron Fire Department (CFD) for a minimum of 20 minutes after discovery of said leak/release. If not longer, in direct conflict with RI 481, Section 5. This led to a delay in emergency response. Had the leak/release gone to catastrophic, and with the close proximity of the A Train furnace, this could have been a fire response rather than a leak/release response. (What is the worst thing that can happen?) When CFD arrived on scene, operators personnel were inside the Hot Zone Area (which Operations put up) attempting to place steam lances on the leak. The CFD were then told not to use water because of concerns of thermal shock to the hot piping, and that it may cause the pipe to fall or the "hole" to get larger. This should not be a concern in an emergency response posture when attempting to disperse vapor from an uncontrolled release of hydrogen. Furthermore, "thermal shock" has been related to be a primary concern due to the lack of evidence that it occurs by many design engineers in the past. Again, had there been a catastrophic failure, there would have been no water stream in place to disperse the hydrogen in view of the close proximity to the A Train furnace. Lastly, once high flow water had been directed toward the leak/release due to it becoming greater in noise and volume, two operators entered the Hot Zone and proceeded to climb R320 up to the first deck in an attempt to isolate a line. This was done without consent from the Incident Commander, and the two had to be quickly removed from the Hot Zone by emergency personnel. Operations personnel were upset that CFD would not let them isolate a valve within the Hot Zone, of which LEL readings were greater than 100%. Worst case scenario would have been a light-off of the hydrogen resulting in injuries and/or death.	NL-Business Process	(1) Dayshift H.O. & STL Left The Incident Scene (NHV turnover time). (2) Chevron Fire department (CFD/PP) did not follow RI requirement. (3) Days HO was not notified of Incident Command by CFD or STL. (4) Sidelbar Issue. Isolation on pipe came off during incident. (5) Sidelbar Issue. Need to practice refinery-wide Incident Command Response hypothetical to ease use and familiarity with instruction
16432	Richmond, CA - Refinery	6/21/2011 4:39:00 PM	Closed	Near Loss	Hydrogen Leak at R320	NL-Operational Process/Procedures - Safety Systems	(1) Dayshift H.O. & STL Left The Incident Scene (NHV turnover time). (2) Chevron Fire department (CFD/PP) did not follow RI requirement. (3) Days HO was not notified of Incident Command by CFD or STL. (4) Sidelbar Issue. Isolation on pipe came off during incident. (5) Sidelbar Issue. Need to practice refinery-wide Incident Command Response hypothetical to ease use and familiarity with instruction	

10482	Richmond, CA - Refinery	6/22/2011 12:03:00 AM	Closed	Loss	Green Card - Water leak, minor staining of back stairwell	ML - Equipment/Property Damage - Equipment	
10489	Richmond, CA - Refinery	6/21/2011 8:15:00 PM	Closed	Loss	Call Out Failure	ML - Lessons Learned	(1) Phone calls were not received due to new cellular service failure
10519	Richmond, CA - Refinery	6/22/2011 12:03:00 AM	Closed	Loss	Employee was not sent their written job offer in a timely manner	ML - Business Process - Business Interruption	
10551	Richmond, CA - Refinery	6/22/2011 9:00:00 AM	Closed	Loss	Tank gauges lost during planned shutdown	Business Process	(1) Communication during job preparation needs improvement
10553	Richmond, CA - Refinery	6/23/2011 12:33:00 PM	Closed	Loss	During a test to verify the 280 and 281 lines together the valve used to by the line became stuck in the open position	ML - Business Process - Business Interruption	(1) Valve forced open under steam rendering it inoperable, (2) Excessive force was used when opening the valve, (3) Uneven surfaces and policies around valve failure
10571	Richmond, CA - Refinery	6/23/2011 7:40:00 PM	Closed	Loss	P-733A seal leak caught fire and was quickly extinguished while Head Operator was verifying isolation of pump.	Fire/Explosion	(1) Valve left open during isolation of the pump
10581	Richmond, CA - Refinery	6/23/2011 4:00:00 PM	Closed	Loss	Green Card - Protector in TC-346 left on overnight	ML - Business Process - Business Interruption	
10592	Richmond, CA - Refinery	6/24/2011 8:00:00 AM	Closed	Loss	Head Operator Shutdown of K-1850	ML - Lessons Learned	(1) Bad temperature indicator caused 2 out of 3 warning shutdown of compressor
10594	Richmond, CA - Refinery	6/24/2011 10:03:00 AM	Closed	Loss	C-1050 Level Indicator Caused HRT to be routed off test	Operational Procedures	(1) Failed L/Torque tube access door opened up

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16524	Richmond CA - Refinery	6/24/2011 7:55:00 PM	Closed	Loss	GHT routed off test	Business Process	(1) SOS: Training and Procedures: Communication GHT Gasoline reprocessed at a cost of <55K. GHT Operations were not aware of change in FCCH feed condition. Were not alerted by the FCC that sulfur was higher than normal. (2) SOS: Training and Procedures: Communication: GHT Gasoline reprocessed at a cost of <55K. Off Spec Gasoline was produced at the GHT. Were not directly alerted by RSL via 7:15 cont call that feed condition could change. (3) SOS: Training and Procedures: Communication: GHT Gasoline reprocessed at a cost of <55K. Off Spec Gasoline was produced at the GHT. GHT Operations were not aware of change in FCCH feed condition. Were not directly alerted of possible feed condition change as 21 day plan. (4) Safety Issue: Training and Procedures: Communication: The guidance for GHT product routing to Comstock is unclear and needs review and modification to minimize impact on gasoline blending and/or reprocessing.
16704	Richmond CA - Refinery	6/27/2011 7:15:00 AM	Closed	Near Loss	EE reported discomfort in left forearm and said they were going to the Clinic. EE was advised to wait for the Supervisor. EE said that they felt that they were experiencing a forearm muscle strain of some sort. EE was then transported to the Clinic.	NL-Injury/Illness - Employee Injury	(1) Why did operator get burned by condensate? - Because condensate came out of the turbine case vent and contacted operator. Why did condensate come out of the vent and contact operator? - Condensate can end up exiting vents for a number of potential reasons (wet steam, inadequate trap system, inability to drain low points, condensing occurring in the vent stacks, etc.). Condensate contacted operator because the steam exhaust block valve that the operator was manipulating is directly under the vent. (2) Since the root cause was identified in a previous incident, why is the exhaust valve "still" under the vent? - After 2009 BAS condensate burn incident, this system was identified as an at risk area that needed solutions put in place to mitigate burn risk. Mitigation was never put in place. (3) Why was solution never put in place to mitigate exposure? - Solution was closed out in investigation database as complete before all components of solution were implemented. No subsequent system was put in place to ensure solutions were owned and being carried to completion.
16761	Richmond CA - Refinery	6/27/2011 2:00:00 PM	Closed	Loss	Operator received burn to his neck and shoulder when hot condensate leaked from unit while attempting to warm up TP-124 for hot alignment.	Injury/Illness	(1) SOS: Design & Engineering: Handle too close to camlock fittings. (2) SOS: Training & Procedures: Loss Vacuum Pressure. Vacuum Pump was not on. Though there was enough vacuum left from the loading. Short Distance from Loading site to off-loading site. (3) Safety Issue: Training & Procedures: 2" cam-lock cap was not removed under full vacuum first to ensure that the discharge line is empty. (4) Safety Issue: Training & Procedures: Driver was not wearing proper personal protective clothing for discharging the vacuum truck.
16791	Richmond CA - Refinery	6/27/2011 8:20:00 PM	Closed	Loss	Vacuum truck driver sprayed by recovered oil while attempting to hook up offload hose connection. An air switch located next to the camlock connection point on the truck was bumped open while in the process of hooking up the 4" pump off hose. Approx. less than 1 barrel of recovered oil spilled to grade which was contained with diaspers. Plant protection was notified and evaluated drivers condition. Driver refused treatment from Chevron EMTs. Vella supervisor was notified and arrived approx. 45 minutes later with safety person and indicated they would be sending driver to see their doctor.	Injury/Illness	(1) SOS: Design & Engineering: Handle too close to camlock fittings. (2) SOS: Training & Procedures: Loss Vacuum Pressure. Vacuum Pump was not on. Though there was enough vacuum left from the loading. Short Distance from Loading site to off-loading site. (3) Safety Issue: Training & Procedures: 2" cam-lock cap was not removed under full vacuum first to ensure that the discharge line is empty. (4) Safety Issue: Training & Procedures: Driver was not wearing proper personal protective clothing for discharging the vacuum truck.
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16791	Richmond CA - Refinery	6/27/2011 8:20:00 PM	Closed	Loss	Vacuum truck driver sprayed by recovered oil while attempting to hook up offload hose connection. An air switch located next to the camlock connection point on the truck was bumped open while in the process of hooking up the 4" pump off hose. Approx. less than 1 barrel of recovered oil spilled to grade which was contained with diaspers. Plant protection was notified and evaluated drivers condition. Driver refused treatment from Chevron EMTs. Vella supervisor was notified and arrived approx. 45 minutes later with safety person and indicated they would be sending driver to see their doctor.	NL-Injury/Illness - Contractor Injury	(1) SOS: Design & Engineering: Handle too close to camlock fittings. (2) SOS: Training & Procedures: Loss Vacuum Pressure. Vacuum Pump was not on. Though there was enough vacuum left from the loading. Short Distance from Loading site to off-loading site. (3) Safety Issue: Training & Procedures: 2" cam-lock cap was not removed under full vacuum first to ensure that the discharge line is empty. (4) Safety Issue: Training & Procedures: Driver was not wearing proper personal protective clothing for discharging the vacuum truck.

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Richmond, CA - Refinery	6/27/2011	1:00:00	Closed	Green Card. No cups available for drinking water. Location: CMG	one, but there was no supervisor. OSHA law requires the employer to supply 1 quart of water per hour per employee, and cups. Are we going to have to carry our own cups around? Location: CMG	NI-Lessons Learned	(1) Design & Engineering: Pump was unable to deliver enough pump discharge pressure. (2) Training & Procedures: No communication between B&S and Poly about running at higher rates at Poly Plant. (3) Design & Engineering: Poorly designed pump could not pump aged acid fast enough
Richmond, CA - Refinery	6/28/2011	9:00:00	Closed	FCC Lost Control of C670 DTM C665 B&S Line Wash Transfer to T-397 as Cause	Prior to transferring T-1899 to T-3195 blending and Shipping Crude washed the 12 PV to T-397. This is a common transfer that happens almost daily. The line wash occurs on the 1181h which serves a common fill header on T-397 with the 141 LN excess from FCC A/B. On this occasion due to unknown process conditions at FCC/B A/B C670 level began to rise uncontrollably.	NI-Operational Procedure/Procedures - Plant Run Outflow Down	
Richmond, CA - Refinery	6/28/2011	2:20:00	Closed	Third Party Outside Hauler not correctly tied in with Safety Harness while operating Manlift. Upon departure of RSG Manlift, Chevron E. stopped and explained to third party outside hauler that he needed to be tied into Manlift while operating.		NI-Injury/Illness - Contractor Injury	(1) Normal practice, user just needed to tie off to unit. Was wearing the safety harness, was in a hurry to drop off his load.
Richmond, CA - Refinery	6/29/2011	2:00:00	Closed	Chemists were taking disconnected from Unit 1 during our normal working day	During our regular working day, some users were being disconnected from their PCs, and the data disconnected their PC, then the "Q" drive would get disconnected also.	NI-Business Process - Additional Supply Occurrence	
Richmond, CA - Refinery	6/30/2011	9:00:00	Closed	Rebooted Server outside of Main Window	Restarted RSG4 Impidmz outside of normal outage window. Installed new Legato client on RSG4 Impidmz. Worked with PI Analyst to schedule outages.	NI-Business Process - Business Interruption	
Richmond, CA - Refinery	6/29/2011	6:30:00	Closed	Green Card. Walkway behind Firehouse rolled. Location: New Firehouse	Green Card. Walkway 1 behind the new Firehouse is rolled.	NI-Injury/Illness - Employee Injury	
Richmond, CA - Refinery	6/30/2011	10:30:00	Closed	Backhoe working on an trench about 10' deep. Backhoe rolled due to loss of tail.	A backhoe was working on a trench with the bucket facing downwards. The backhoe rolled over the trench and the backhoe was washed into the trench. In the tank and the sharp downwards angle caused the fuel pump to be skewed.	NI-Business Process - Business Interruption	
Richmond, CA - Refinery	6/27/2011	10:00:00	Closed	Green Card. Replaced fire monitor deck. Location: Behind separator on Main Street	Green Card. Replaced the fire monitor deck located behind separator on Main St. (If there is a fire, cannot use the fire monitor. Location: EOD. Behind separator on Main St.	NI-Lessons Learned	
Richmond, CA - Refinery	6/30/2011	2:15:00	Closed	P-152A cooling water pump suction piping leak.	While hot aligning P-152A cooling water pump the suction piping seal started leaking. The pump was out to service the coupling. The spot lined due to external corrosion.	NI-Equipment/Property Damage - Equipment Damage	
Richmond, CA - Refinery	6/14/2011	PM	Closed	Backing Company vehicle coming up behind van	Contractor was backing out of parking space as another vehicle was approaching. Contractor did not see the vehicle behind him and continued to back out of spot. Fortunately, approaching vehicle stopped early to avoid possible low speed collision.	NI-Transportation - Contractor	
Richmond, CA - Refinery	6/14/2011	PM	Closed	Operator noticed small HC leak on channelhead of E-35603	During first rounds, unit operator noticed liquid/vapor spilling from the bottom of the channelhead of E-35603. He informed the Head operator, who in turn informed the S.T.L. The warning sign was placed in service to alert light. CTD was notified. The process was shut down. E-35603 was not used for the next several hours. CTD of E-35603 was shut down. E-35603 was not used for 23:00 during a routine check of Inprocess. It was noted that the tank had stopped. Maintenance and DEC checked the exchanger on the following day. The tank and steam was shut off to the steam ring.	NI-Environmental - General	(1) SOS: Maintenance & Inspections: E-35603 LEAK AT CHANNEL HEAD. Head operator saw liquid/vapor spilling from the bottom of the tank during first rounds. CTD of E-35603 was shut down. E-35603 was not used for 23:00 during a routine check of Inprocess. It was noted that the tank had stopped. Maintenance and DEC checked the exchanger on the following day. The tank and steam was shut off to the steam ring.
Richmond, CA - Refinery	6/29/2011	2:00:00	Closed	Green Card - Hand Rail in rear of repair	Green Card - I leaned on a hand rail and almost fell onto the pipe trenches because the 4 x 4 support was weak.	NI-Equipment/Property Damage - General	
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Injury/Illness - Contractor Injury	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately 2 feet.	NI-Environmental - Spill	(1) The drum was under pressure; there was liquid in the funnel on top of the closed valve. (2) The liquid in the funnel should have been drained out.
Richmond, CA - Refinery	7/12/2011	PM	Closed	Opening waste oil storage drum in back of D & R lab. drum buried of out which shot about 2 feet into the air	Went to dispose of sampled oil into waste oil drum at the back of the D & R lab. When I opened the valve to the drum to pour the oil into the drum, oil shot out of the drum up into the air approximately		

[illegible]

17621	CA - Refinery	11:40:00 AM	Closed	Near Loss	Increase in HN2 % cause C-420 to become unstable	Flueviald HN2 % in feed cause column C-420 pressure to bounce (High DIP) and followed by sudden pressure drop), possible cause off test product.	NL - Quality - Product Quality (tn)	(1) F-510 SUD during FSSD Quick Test Why - High Pressure in the gas header Why - Operators were closing the block valve to the FIC and opening the bypass valve to perform the Quick Test. Bypass valve was opened to relief / not closed. Why - Closing the FIC block valve, (the bypass valve takes away the pressure from the FIC) - Not familiar with task. F-510 bypass valve takes very little input once off the seat to make a substantial change in flow/pressure. Why - This task only rotates around to different crews periodically.
17630	Richmond, CA - Refinery	7/6/2011 12:41:00 PM	Closed	Near Loss	F-510 shut down during FSSD Quick Test	2 operators were performing a FSSD Quick Test at F510. One began closing valve on that gas line downstream of F51C in preparation to open bypass. When pressure started to drop he notified the other who then began to open bypass. After a few seconds continued to open bypass and suddenly got low line pressure pegged 60 psi gauge and bypass was quickly closed. It was too late as the fuel gas stopped. Operators then isolated all fuel gas valves and followed relief process to re-bleed F510. The operators had the FSSD Quick Test checklist in hand and were using it.	NL - Operational Process/Procedures - Plant Run Outflow Down	(1) When hoses not drilled in Trico where causing overflow of burning liquid causing loss of lubrication. - No additional modifications to add weep hole to prevent overflowing (machinists have been notified, though)
17651	Richmond, CA - Refinery	6/29/2011 12:41:00 PM	Closed	Loss	TP-310 A-Train HFBFW pump tripped off fire	TP-310A was in service pumping 2500 GPM of HFBFW (high pressure boiler feed water) and without warning shutdown. MP-310 immediately started via APS (Automatic pump starting) which minimized HFBFW circulation interruption.	Equipment/Property Damage	(1) PT1348 (V-435 overhead PT to relief) failed, causing NDC1348 to go wide open to relief.
17669	Richmond, CA - Refinery	7/11/2011 2:00:00 AM	Closed	Near Loss	Increase in SISO Relief HDR to FGR	OWSG received an alarm when the sudden pressure increased at FGR. Operator K-1420D (V-435 overhead PT to relief) failed, causing NDC1348 to go wide open to relief. Once OWSI closed the overhead pressure controller PV1348 to relief, manual with set point at 0% (the valve leaks by) and Make-up controller PV134A in auto with set point at 15 PSIG the uncontrolled flow to relief was resolved. VNR 337008	NL - Operational Process/Procedures - Safety Systems	(1) PT1348 (V-435 overhead PT to relief) failed, causing NDC1348 to go wide open to relief.
17697	Richmond, CA - Refinery	7/10/2011 3:30:00 AM	Closed	Near Loss	Green Card Tanks do not have good grounding locations, Location BSS	Green Card While gauging multiple tanks observed that most or all tanks do not have good grounding. BSS and emergency rings or rods connected to the electrical point in the base grounding locations available on most tanks. Location: BSS	NL - Lessons Learned	(1) 5 Why: 1. Why did AOC/HazWhele miss carbon change-out because AOC/H technician told the liquid specialists the readings were fine. 2. Why did the AOC/H technician tell the liquid specialists that the VOC reading was fine good? Because the AOC/H technician was told during a turnover that the 10% of total technician was not doing a turnover and did not read the paragraph on data sheet stating the 600 ppm breakthrough would need a change-out of carbon.
17699	Richmond, CA - Refinery	7/10/2011 12:01:00 AM	Closed	Loss	Non-compliance with VEGP abatement carbon canister changed	The inspection of carbon vapor abatement on fac. tank related to R-1410 in the Alky plant failed to get the proper changing of the carbon canister, based on information from technician recorded. Permit condition reads as follows: Must remove Carbon #1 if reading A point, B (between 1st and 2nd turn) is >10% of fresh carbon is then placed into position #2. If the reading is >10% then both carbon #1 and #2 need to be replaced. The replacement was greater than 1000 ppm after the 1st carbon canister and should have been taken out of service and replaced with 2nd canister. This happened on both days during the weekend!	Regulatory Compliance	(1) theft unknown
17710	Richmond, CA - Refinery	7/11/2011 12:00:00 AM	Closed	Loss	Theft of welding cable	1st canisters discovered there welding leads that are used for the rock field (the design). There was between 1800 and 1900 feet of welding cables chained locked up in the weld bay.	Security	(1) theft unknown
17720	Richmond, CA - Refinery	7/11/2011 10:20:00 AM	Closed	Loss	Confined employees in guard rail with rental truck	Confined employees was traveling north on Patricello St. and made a right turn across narrow bridge into DSR control room parking lot. In the process of turning, the right rear wheel well caught the guardrail resulting in damage to right fender panel and rear bumper of rental truck.	Transportation	(1) EE turned too sharp and contacted the guard rail
17773	Richmond, CA - Refinery	7/12/2011 12:00:00 AM	Closed	Near Loss	Contractor Observed Near Diking Forklift in the Tank Field	Contractor was observed using a forklift up road to 679 TK on Patricello Hill. Company employee informed the contractor that this was not allowed and he was asked to leave the area. After discussion with contractor it was discovered that he was not aware that this area was considered part of the "Tank field" and off limits plus there was no sign present.	NL - Equipment/Property Damage - General Liability	(1) Failure to follow existing Chevron Forklift Policy.
17773	Richmond, CA - Refinery	7/12/2011 12:00:00 AM	Closed	Near Loss	Contractor Observed Near Diking Forklift in the Tank Field	Contractor was observed using a forklift up road to 679 TK on Patricello Hill. Company employee informed the contractor that this was not allowed and he was asked to leave the area. After discussion with contractor it was discovered that he was not aware that this area was considered part of the "Tank field" and off limits plus there was no sign present.	NL - Injury/Illness - Contractor Injury	(1) Failure to follow existing Chevron Forklift Policy.
17773	Richmond, CA - Refinery	7/12/2011 12:00:00 AM	Closed	Near Loss	Contractor Observed Near Diking Forklift in the Tank Field	Contractor was observed using a forklift up road to 679 TK on Patricello Hill. Company employee informed the contractor that this was not allowed and he was asked to leave the area. After discussion with contractor it was discovered that he was not aware that this area was considered part of the "Tank field" and off limits plus there was no sign present.	NL - Injury/Illness - Contractor Injury	(1) Failure to follow existing Chevron Forklift Policy.

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17804	Richmond, CA - Refinery	7/12/2011 10:00:00 PM	Closed	Loss	Exposure to fumes that irritated EC throat and gave headache	different acid inhibitor that was substituted for what is typically used, the chemical used was not clearly outlined in the procedure, the cost for maintenance rework/delays associated with the second chem clean circulation to address the odors was not planned or budgeted and personnel exposure resulted in acute illness to one individual who was later deemed to return to work.	Injury/Illness	
17807	Richmond, CA - Refinery	7/11/2011 8:20:00 AM	Closed	Near Loss	Contra Cam Realis Dispatch in Firehouse	The Dispatcher console was blanking out momentarily	NL-Operational Process/Procedures - Safety Systems	
17822	Richmond, CA - Refinery	7/12/2011 3:40:00 PM	Closed	Loss	Officer tripped over a trench plate and water hose causing body injury.	Officer tripped over a trench plate and water hose which caused bodily injury (scraped knees, shin, elbow bump on head). Officer was authorized to return to duty by Doctor at refinery clinic. However, Officer was replaced at post and allowed to go home and recuperate. Doctor wants to see him when he returns at regularly scheduled time Thursday (7/14) before he goes to his post.	Injury/Illness	(1) Plate 1. Why did the Officer trip over the trench plate? a. The edge of the plate was higher than grade. 2. Why was the plate higher than grade and not reported? a. The plate was warped or the maling surface was uneven. b. In the past did not follow procedure or acceptable practices and no incident occurred. (2) The Officer tripped and fell stepped on wet garden hose, slipped and tripped on the uneven trench plate. Hose 1. Why did the Officer walk on the hose? a. The Officer walked on the hose because it wasn't properly stored. 2. Why wasn't the hose properly stored? a. In the past did not follow procedure or acceptable practices and no incident occurred.
17971	Richmond, CA - Refinery	7/14/2011 10:35:00 AM	Closed	Loss	CW lines to C1180 sample drew knocked / damaged during staging	During staging for upcoming SCD near C1180 the lines of CW to the C1180 sample drew were knocked and subsequently damaged. This caused a leak in the supply line and the return line was also damaged. The CW was blocked in and the lines were drained. However, operations is now unable to draw the C1180 sample as the cooler is needed for sample draw. The product is approx. 170 degrees Fahrenheit.	NL-Equipment/Property Damage - Equipment	(1) staggers bumped water line
17971	Richmond, CA - Refinery	7/14/2011 10:35:00 AM	Closed	Loss	CW lines to C1180 sample drew knocked / damaged during staging	During staging for upcoming SCD near C1180 the lines of CW to the C1180 sample drew were knocked and subsequently damaged. This caused a leak in the supply line and the return line was also damaged. The CW was blocked in and the lines were drained. However, operations is now unable to draw the C1180 sample as the cooler is needed for sample draw. The product is approx. 170 degrees Fahrenheit.	Equipment/Property Damage	(1) staggers bumped water line
17976	Richmond, CA - Refinery	7/12/2011 3:00:00 PM	Closed	Loss	Foul overwhelming odor in Any plant (F. Sattler & K. contactor) following chemical cleaning	TOP INVESTIGATION IN LU 17804- Ally F. Sattler & K. contactor had been chemically neutralized in preparation for project work inside V-1410F. Empty blinds had been installed and manways opened to establish equipment ventilation on Monday 7/11. Upon initial inspection of equipment on Tuesday 7/12, Maintenance detected an unusual & strong odor coming from the opened equipment. Maintenance requested Ops Mgmt and Safety Dept. rep to assess the condition of the equipment for cleanliness. A decision was quickly made to close the equipment and initiate an additional Delta Tech chemical circulation procedure to eliminate the residual chemical which was generating the odors. The associated losses to this incident are: Chemical used by Delta Tech was a different acid inhibitor that was substituted for what is typically used, the chemical used was not clearly outlined in the procedure, the cost for maintenance rework/delays associated with the second chem clean circulation to address the odors was not planned or budgeted and personnel exposure resulted in acute illness to one individual who was later deemed to return to work.	Business Process	
17976	Richmond, CA - Refinery	7/12/2011 3:00:00 PM	Closed	Loss	Foul overwhelming odor in Any plant (F. Sattler & K. contactor) following chemical cleaning	TOP INVESTIGATION IN LU 17804- Ally F. Sattler & K. contactor had been chemically neutralized in preparation for project work inside V-1410F. Empty blinds had been installed and manways opened to establish equipment ventilation on Monday 7/11. Upon initial inspection of equipment on Tuesday 7/12, Maintenance detected an unusual & strong odor coming from the opened equipment. Maintenance requested Ops Mgmt and Safety Dept. rep to assess the condition of the equipment for cleanliness. A decision was quickly made to close the equipment and initiate an additional Delta Tech chemical circulation procedure to eliminate the residual chemical which was generating the odors. The associated losses to this incident are: Chemical used by Delta Tech was a different acid inhibitor that was substituted for what is typically used, the chemical used was not clearly outlined in the procedure, the cost for maintenance rework/delays associated with the second chem clean circulation to address the odors was not planned or budgeted and personnel exposure resulted in acute illness to one individual who was later deemed to return to work.	Quality	

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17975	Richmond, CA - Refinery	7/12/2011 5:00:00 PM	Closed	Loss	Four overweighing odor in Alky plant (4r steller & K contact) following chemical cleaning	close the equipment and initiate an additional Delta Tech chemical circulation procedure to eliminate the residual chemical which was generating the odors. The associated losses to this incident were. Chemical used by Delta Tech was a differential acid inhibitor that was substituted for what is typically used, the chemical used was not clearly outlined in the procedure, the cost for maintenance rework/delays associated with the second chem clean circulation to address the odors was not planned or budgeted and personal exposure resulted in acute illness to one individual who was later cleared to return to work.	Operational Procedures	
18165	Richmond, CA - Refinery	7/11/2011 10:00:00 AM	Closed	Near Loss	Almei exceeded V-476 H2S 24 Hr Avg	Following an upset condition of the #3 H2S plant starting on 7/16 at 02:30am, V-475 Fuel Gas XO drum saw levels of H2S as high as 126.1 ppm. The H2S 24 hour average has a maximum value of 60 ppm and the highest that was detected was 49.3 at 03:58 am on 7/17.	NL-Regulatory Compliance - Permit Exceedance	(1) PED and Nalco had not established proper operating guidelines or maximum for anti-foam injection, (2) PED/Operations were unaware of the potential for flooding/foaming caused by too much return flow to C-220
18216	Richmond, CA - Refinery	7/15/2011 12:00:00 AM	Closed	Near Loss	Unable to install TP-310A due to lack of material	Unable to install TP-310A as scheduled due to lack of required material, IE: A regulatory required Relative Accuracy Test Audit (RATA) for the FCC V-65 oxygen analyzer was not completed during the 14 day window of 2011 resulting in a Title V deviation. The originally scheduled test was delayed twice due to operational issues, and due to a communications breakdown with the test contractor, a third test was never scheduled.	NL-Lessons Learned	(1) Inadequate communication between plant mechanic and planner, (2) Need management to review position vacancies to determine if adequate personnel levels are maintained to ensure successful planning, scheduling and execution.
18233	Richmond, CA - Refinery	9/31/2011 11:58:00 PM	Closed	Loss	Regulatory required test of FCC V-65 O2 analyzer was not completed for 1st 10/2011	Regulatory required VOC inspections were not conducted on new flow meter components on the Vthet Vapor Recovery line at the ERD. The components were replaced in late October 2010 and the AL Compliance inspection (ALCOP) was performed in November 2010. Inspections to add these to their VOC inspection database and as a result required quarterly VOC inspections were not conducted for the 4Q2010, 1Q2011, and 2Q2011.	Regulatory Compliance	(1) No system or procedure to assure test had been completed.
18242	Richmond, CA - Refinery	7/19/2011 1:00:00 PM	Closed	Near Loss	Two abandoned lines dripped less than a gallon of hydrocarbon during a hot day	Two abandoned lines dripped less than a gallon of hydrocarbon during the heat of the day	NL-Equipment/Property Damage - Equipment	(1) Human error
18271	Richmond, CA - Refinery	7/20/2011 12:00:00 AM	Closed	Near Loss	Company car found with trunk open	Company car found with trunk open - when arriving at work. Car was located in parking lot on B&S side of catwalk. Car was white Chevy - 4AC1152. Not known if anything was removed from trunk	NL-Security - Property Loss or Theft - Physical Property	
18271	Richmond, CA - Refinery	7/20/2011 12:00:00 AM	Closed	Near Loss	Company car found with trunk open	Company car found with trunk open - when arriving at work. Car was located in parking lot on B&S side of catwalk. Car was white Chevy - 4AC1152. Not known if anything was removed from trunk.	NL-Transportation - Company	
18308	Richmond, CA - Refinery	7/20/2011 12:00:00 AM	Closed	Near Loss	Lost LOTO key	Opened LOTO box to remove lock and the key was not inside	NL-Operational Procedures - Safety Systems	(1) The initial surge of oil that made it past 13 separator into the bioreactor on the weekend of 7/16/11 was found to be a 110R/LV run at the time but no single point source of release to the sewer could be identified. Subsequent oil that continued to show up in 13 separator and bioreactor was found to be 220R. Team found that 220R was coming from a bleed bypassed around the RLO production source. 220R oil in 13 separator subsided significantly after 220R oil stopped showing up in RLOP cooling tower was returned out. Oil stopped cooler E-1104A was isolated on both the oil side and cooling water side. Unable to positively identify a single source of oil that would have singularly contributed to overweighing 13 separator.
18314	Richmond, CA - Refinery	7/16/2011 12:00:00 AM	Closed	Near Loss	Large amount of oil impacting 13 separator and the bio inlet	A large amount of oil passed through 13 separator and entered the bioreactor inlet on the weekend of July 16. Oil was visibly described as waxy. After the first 4 days, the oil changed in appearance/color. At this time, EOD visually identified the 6P line from Hydro as the contributing source to the oil. Coincidentally, EOD operations made significant changes to 13 separator (reducing its separation capacity in preparation for planned maintenance) on the Monday after the oil began showing up. The oil continued to overweigh 13 separator for about a week, and a half before subsiding to normal oil levels that 13 separator could handle	NL-Environmental - Operational Leak	(1) SDS/Maintenance & Inspection: Jack Used Was Too Small for the Job. Bigger Size Jack Was Unavailable. Order Hadn't Come In. (2) SDS: Mitigation Devices: Jack Became Unstable. No Stave For The Pipe. (3) SDS: Personal Protective Factors: Jack Used Was Too Small for the Job. Thought It Would Be Safe to Use until bigger Jack arrived.
18371	Richmond, CA - Refinery	7/21/2011 10:00:00 AM	Closed	Near Loss	Contractor Employee stuck on upper bridge of loss nose	While contract employee was blocking and raising pipe hydraulic jack kicked out causing the jack to come in contact with workers nose	NL-Injury/Illness - Contractor Injury	
18378	Richmond, CA - Refinery	7/21/2011 10:00:00 AM	Closed	Near Loss	Green Card. Hand rag broke after contract Painter leaned on it. Location: Long Wharf	Green Card. Hand rag gave way after contractor painter leaned against hand rail and almost fell in the water. Location: Long Wharf Bent 104	NL-Injury/Illness - Contractor Injury	
	Richmond	7/22/2011			Plant Op noticed tube of flow from P1601 gearbox showed no flow when he			

18448 Richmond, CA - February AM	7/24/2011 10:00:00	Closed	Near stalled tube of flow from gas box P1601A	hooked in bulls' eye. This had also occurred in all of P1601's bulls' eyes on initial startup.	NL-Lessons Learned	(1) Breather Cap on oil reservoir and does not allow pressure to vent causing low oil flow into reservoir readily
18403 Richmond, CA - February AM	7/24/2011 10:00:00	Closed	Loss Cogen T-2000 train trip	Loss of Cogen 2000 train due to temperature probe issues	Business Process	(1) While disabling T of 2 the CGT Tripped, 'B' TI was erratic, Ops disabled 'A', TI first and the second TI went erratic and initiated 2 of 2 trip logic.
18515 Richmond, CA - February AM	7/19/2011 6:00:00	Closed	Near Green Card Low Visibility Crossing Channel St. at Toalano St.	Green Card - Hard to see for workers walking from Gate 81 around CRTC drum stacking crossing Channel St. Walking on terrain so steep so they could cross Channel St. Location: Channel St. at Toalano St.	NL-Injury/Illness - Contractor Injury	
18523 Richmond, CA - February AM	7/26/2011 12:00:00	Closed	Near Leak from unknown source	A strong gasoline odor lead to the discovery of Gasoline under 982 manifold header system on SP Hill. Due to debris under the manifold system we have been unable to locate the source. Leak was located as coming from the 10 whart on T-982 header and plans for the repair are underway	NL-Environmental - Operational Leak	
18513 Richmond, CA - February AM	7/26/2011 11:00:00	Closed	Loss Contractor tripped over hose and hurt his ankle.	Contractor tripped over a 4" petroleum hose at the 14 separator offloading area. He fell to the ground and hurt his ankle. Contractor immediately called his supervisor and informed him of the incident. Chevron fire was called out to examine the contractor. Contractor was taken to his companies medical clinic onsite.	Injury/Illness	(1) Why did the Veolia vacuum truck driver injure his ankle? He fell with his foot caught between a 4" hose and a permanent concrete block structure. Why did he have his foot caught between the hose and the concrete structure? He was not paying close enough attention to his surroundings. Why was he not paying close attention to his surroundings? He was helping out a fellow driver, and got distracted. Why did he get distracted? It was a very busy period causing him to lose focus of his surroundings.
18532 Richmond, CA - February AM	7/19/2011 6:00:00	Closed	Near Green Card, Multiple large potholes, Location: GMG staging lot	Green Card, Multiple large potholes, causing forklift to become unstable while moving and lifting. Location: GMG staging lot	NL-Injury/Illness - Contractor Injury	
18534 Richmond, CA - February AM	7/19/2011 7:00:00	Closed	Near Green Card, Tripped on an air hose. Location: BAS #7 Pump Station	Green Card Tripped on an air hose that has across rated pathway into 7 Green Card Tripped on an air hose that could have resulted in a serious fall down in the station or into the T-1506 lower area. Location: BAS #7 Pump Station	NL-Injury/Illness - Employee Injury	
18542 Richmond, CA - February PM	7/25/2011 5:30:00	Closed	Near K-900A to K-900 switch	While switching from K-900A to K-900 for K-900A maintenance Hydrotom pump shut down unexpectedly causing K-900A to load to full safe 100%. This leaving River export H2 to North Yard. K-900A shutdown on a CPU error control output out of range.	NL-Business Process - Business Interruption	
18533 Richmond, CA - February AM	7/21/2011 10:30:00	Closed	Near Green Card - Large cover to breaker panel in PC #6 LP 2A in RLOP 18 Plant was removed, leaving bare wires exposed	Green Card - Large cover to breaker panel in PC #6 LP 2A in RLOP 18 Plant was removed, leaving bare wires exposed. Cover was laying on the ground next to it.	NL-Lessons Learned	
18589 Richmond, CA - February AM	7/27/2011 3:30:00	Closed	Loss Employee complaint of back pain due to an injury sustained at home while performing yard work.	Employee complaint of back pain due to an injury sustained at home while performing yard work. The pain, present at start of shift, progressively worsened throughout the night to the point where he requested Plant Protection respond and provide transport to a hospital.	Injury/Illness	(1) Off the job injury
18599 Richmond, CA - February AM	7/27/2011 3:30:00	Closed	Loss Employee complaint of back pain due to an injury sustained at home while performing yard work.	Employee complaint of back pain due to an injury sustained at home while performing yard work. The pain, present at start of shift, progressively worsened throughout the night to the point where he requested Plant Protection respond and provide transport to a hospital.	NL-Injury/Illness - Employee Injury	(1) Off the job injury
18724 Richmond, CA - February AM	7/26/2011 11:15:00	Closed	Near Green Card, Tripped over the concrete parking barrier. Location: Cackling Admin Bldg	Green Card, Leaving the building, I was concentrating on locating my vehicle so my eyes went on the path and I tripped over the concrete parking barrier.	NL-Lessons Learned	
18755 Richmond, CA - February AM	7/27/2011 9:00:00	Closed	Near Green Card - Truck cut corner very tight at Mill / Channel & almost hit HealthQuest vehicle at Loss	Green Card - Truck cut corner very tight at Mill / Channel & almost hit HealthQuest vehicle waiting to make a turn on to Channel Street.	NL-Transportation - Contractor	
18755 Richmond, CA - February AM	7/27/2011 9:00:00	Closed	Near Green Card - Truck cut corner very tight at Mill / Channel & almost hit HealthQuest vehicle at Loss	Green Card - Truck cut corner very tight at Mill / Channel & almost hit HealthQuest vehicle waiting to make a turn on to Channel Street.	NL-Injury/Illness - Contractor Injury	
18755 Richmond, CA - February AM	7/27/2011 9:00:00	Closed	Near Green Card - Truck cut corner very tight at Mill / Channel & almost hit HealthQuest vehicle at Loss	Green Card - Truck cut corner very tight at Mill / Channel & almost hit HealthQuest vehicle waiting to make a turn on to Channel Street.	NL-Transportation - Company	(1) ANS injection rate into T-3107 set too high & why document location: https://coahb001-

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18989	Richmond, CA - Refinery	7/29/2011 11:30:00	Closed	Near Loss	Solids in 2 Sep.	Solids found at 17 Sep. No intel - possible cause, coning/high vent-ANS infection last 1000 lbs. (MFPD)	NI - Quality - Inconced Volume	100.0% Chevron, 100.0% Shell, 100.0% P.S. (Purified) L201-1 or -25% 205-Way 42050145% 20M% 20% 20%
18989	Richmond, CA - Refinery	7/20/2011 12:00:00	Closed	Near Loss	DHT feed pump lost suction due to 3/1C stopper level control.	The atmospheric side cuts to accommodate the new feed qualities. Ops were adjusting the 3/1C stopper level control and inadvertently starved the suction of the DHT feed pump, causing the pump to trip. Ops instantly recognized the error, re-established feed to DHT and recovered from incident.	NI - Operational Process/Procedures - Safety Systems	
19013	Richmond, CA - Refinery	7/24/2011 5:30:00	Closed	Near Loss	Operator eye was swollen and extruding fluid. It was thought to be ZAX contamination. It was a percent medical condition.	Operator had a eye swelling and extruding fluid. The operator thought they had gotten ZAX in their eye. Plant protection was called and rinsed the eye and sent the operator to the Martinez clinic. The clinic further tested and irrigated the eye. The clinic medicinally discovered that the issue was not ZAX contamination but it was percent medical condition. The operator returned to work after treatment of the eye.	NI - Injury/Illness - Employee Injury	
19031	Richmond, CA - Refinery	8/1/2011 1:11:00	Closed	Near Loss	Green Card. Methanols growing on outside of building. Location: 2308 Main	Green Card. Methanols growing on outside of building on back of building. Location: 2308 Main	NI - Equipment/Property Damage - Equipment Damage	
19100	Richmond, CA - Refinery	8/11/2011 10:40:00	Closed	Near Loss	A pickup truck backed up near of the roadway near 83 Tank Pad	After loading rubber cages into his pickup truck, the employee attempted to perform a 3 point turnaround in the roadway near 83 Tank Pad. In the process he misjudged the distance to the edge of the road causing him to roll down the short embankment. There was no property damage or injury caused by the incident.	NI - Transportation - Contractor	
19111	Richmond, CA - Refinery	8/1/2011 3:15:00	Closed	Loss	Employee pulled off road to answer call. Car drifted into guard rail.	Car Door dented while employee pulled off road to answer call.	Equipment/Property Damage	(1) Car was not place in park prior to use of cell phone.
19164	Richmond, CA - Refinery	8/2/2011 8:30:00	Closed	Loss	Particle in the eye	Employee got his hair cap, which is stored on a hook in his work area and started pinning it on his head when he felt something enter his eye. Employee was wearing his safety glasses at the time.	Injury/Illness	(1) Dust particles that came to rest in employee's cap which he took on a hook in his work area. (2) Dust particles came to rest in employee's cap which is stored on a hook in his work area.
19202	Richmond, CA - Refinery	8/2/2011 5:30:00	Closed	Near Loss	Contractor reported back dislocation to lower back	Contractor reported back dislocation to lower back	NI - Injury/Illness - Contractor Injury	
19219	Richmond, CA - Refinery	8/2/2011 1:00:00	Closed	Near Loss	Feed pump shut down for unknown reason. Would not restart.	P640 Feed pump shut down for unknown reason. Would not restart.	NI - Operational Process/Procedures - Plant Run Out/Slow Down	
19241	Richmond, CA - Refinery	8/2/2011 6:00:00	Closed	Near Loss	Green Card. During heavy construction at South Yard substition, traffic was limited and GMS yard adapted its traffic throughput to complement Petrolium St. Heavy construction is done.		NI - Lessons Learned	
19242	Richmond, CA - Refinery	8/2/2011 8:30:00	Closed	Near Loss	Green Card. Several processes have been changed for the PAMM group without any documentation. Location: PAMM	Several processes have been changed for the PAMM group without any documentation. No MOC, no new procedures, no RI changes, i.e., Nako, Hoses, Point of Use safety equipment, sewer balloons.	NI - Lessons Learned	(1) No warm up prior to task of lifting boxes (2) No warm up prior to task of lifting boxes (3) Incorrect Body Positioning for reaching for boxes (4) Latching mechanism on delivery basket needs redesign (5) Incorrect Body Positioning for reaching for boxes (6) Work group was not aware of swing door on basket (7) Employee was not aware of swing door on basket
19252	Richmond, CA - Refinery	8/2/2011 7:40:00	Closed	Loss	EE FELT POP IN LOWER RIGHT SIDE OF BACK	EE WAS REMOVING BOXED MATERIAL RECEIVED FROM THE STOREHOUSE FROM A STOREHOUSE BASKET WHEN HE FELT A POP IN THE LOWER RIGHT SIDE OF HIS BACK. THE EE HAD BRACED HIS RIGHT KNEE AGAINST THE BASKET WHILE LEANING HIS UPPER TORSO TO THE RIGHT AND OVER THE EDGE OF THE BASKET WHEN HE FELT THE POP	NI - Injury/Illness - Employee Injury	(1) No warm up prior to task of lifting boxes (2) No warm up prior to task of lifting boxes (3) Incorrect Body Positioning for reaching for boxes (4) Latching mechanism on delivery basket needs redesign (5) Incorrect Body Positioning for reaching for boxes (6) Work group was not aware of swing door on basket (7) Employee was not aware of swing door on basket
19252	Richmond, CA - Refinery	8/2/2011 7:40:00	Closed	Loss	EE FELT POP IN LOWER RIGHT SIDE OF BACK	EE WAS REMOVING BOXED MATERIAL RECEIVED FROM THE STOREHOUSE FROM A STOREHOUSE BASKET WHEN HE FELT A POP IN THE LOWER RIGHT SIDE OF HIS BACK. THE EE HAD BRACED HIS RIGHT KNEE AGAINST THE BASKET WHILE LEANING HIS UPPER TORSO TO THE RIGHT AND OVER THE EDGE OF THE BASKET WHEN HE FELT THE POP	NI - Injury/Illness - Employee Injury	(1) PED - unintended coling of catalyst caused longer than scheduled dump. (2) INSPECTION - lack of history of belzona in this vessel made it impossible to predict its condition. We now have the data for future main windows. (3) OPERATIONS - ops had concerns w/rt pipe class on temp pipe and its proper rating. (4) OPERATIONS - Reactor therman took longer than anticipated using current procedure
19258	Richmond, CA - Refinery	11/15/2010 12:00:00	Closed	Loss	Turnaround extension of schedule and overrun of budget	4011 DHT Cal Charge TA went over schedule by 8.5 days and over budget by -45000.	Business Process	

19345	Richmond CA - Refinery	7/24/2011 8:00:00 PM	Closed	Near Loss	T-3101 had stratification after the discharge of the Viscosity on 723.	NL-Business Process - Business Interruption	(1) Scheduler did not allow enough mixing time for the two crudes
19346	Richmond CA - Refinery	8/4/2011 1:05:00 PM	Closed	Loss	Employee was exiting the restroom when a gust of wind blew a particle into his left eye. Employee stated that he was wearing his safety glasses at the time of the incident.	NL-Injury/Illness - Contractor Injury	(1) Not wearing sealed eyewear
19346	Richmond CA - Refinery	8/4/2011 1:05:00 PM	Closed	Loss	Employee was exiting the restroom when a gust of wind blew a particle into his left eye. Employee stated that he was wearing his safety glasses at the time of the incident.	Injury/Illness	(1) Not wearing sealed eyewear
19352	Richmond CA - Refinery	8/4/2011 4:40:00 PM	Closed	Loss	Loss of K-242/K-252 due to high liquid level in KO pot.	NL-Operational Process/Procedures - Safety Systems	(1) New Pour Point Analyzer Casual Factor #1: Procedure not available. The operating procedure for the pour analyzer is not current and is for another (obsolete) analyzer. In the RLOP EOM site, only the obsolete analyzer's procedures are found. The new procedure is available, but is only accessible from CCD's ISO 9001 SOP and not linked to RLOP's. Prior to the lab move operators were routinely running and charting results indicating they were familiar with operating procedures on the fill analyzer. MOC was completed for new analyzer on the fill analyzer. Root Cause: Improper use of ISO 9001-2008 has been used to create a new procedure. In frequent Audits & Evaluations there is no accountability for not running and charting standards. Results and charts were not reviewed over quite some time, yet no one is held accountable. The ISO Quality Manual (Sec. 8) clearly states that statistical techniques are used to monitor our processes and that calibration of the base oil lab equipment is checked by running known standards and charted on SPC control charts to insure they are accurate and reliable. They are defined as part of the operator's routine duty. Failure to comply can lead to a major non conformance and ISO certification can be pulled until conformance is met and verified. Being ISO certified is also part of our contractual agreement with our customers. (2) Root Cause: Lab Move Casual Factor #1: Standards, Policies or Administrative Controls Not Used: Accountability Needs Improvement: The RLOP field lab has been relocated temporarily to Refinery 1. The Lab was not properly equipped to handle the move. The RLOP field lab has been relocated temporarily to Refinery 1. The Lab was not properly equipped to handle the move. The RLOP field lab has been relocated temporarily to Refinery 1. The Lab was not properly equipped to handle the move.
19414	Richmond CA - Refinery	2/18/2011 12:00:00 AM	Closed	Loss	The lab control charts for finished base oil at the RLOP had never been finished base oil at the RLOP had never been consistently filled out since February 2011.	Quality	(1) Single globe block valve at 8 Plant boundary does not provide tight shut-off to prevent water contamination of NH3 feed during 8 Plant cleanups. (2) Procedural changes have been discussed to warn of and potentially segregate well known issues during planned plant cleanups, but no investigation solutions were documented to ensure and verify changes were made.
19443	Richmond CA - Refinery	8/7/2011 4:53:00 AM	Closed	Loss	Contaminated stream of NH3 supply to the Cogen Units.	Environmental	(1) Board operator exited dryer regeneration early without checking V-1540 under level. (2) Procedure incorrectly states to open isolation valve at the top of the dryer when putting it into standby mode. (3) Normal practice is to only notify LPGA Reade when unable to swap dryers following a wet freeze test result.
19445	Richmond CA - Refinery	8/6/2011 6:00:00 PM	Closed	Near Loss	Prepare water % above limit - freeze test > 180 sec	NL-Quality - Product Quality (m)	(1) Operator did not follow procedures for draining DCMA prior to disconnecting from vessel. WHF9882J Cleaning DCMA's.
19504	Richmond CA - Refinery	8/7/2011 8:30:00 PM	Closed	Near Loss	Upon attempt to raise the level on the Sunset Bay DCMA #2 stopped working.	NL-Business Process - Damage	(1) Operator did not follow procedures for draining DCMA prior to disconnecting from vessel. WHF9882J Cleaning DCMA's.
19504	Richmond CA - Refinery	8/7/2011 8:30:00 PM	Closed	Near Loss	Upon attempt to raise the level on the Sunset Bay DCMA #2 stopped working.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	(1) Operator did not follow procedures for draining DCMA prior to disconnecting from vessel. WHF9882J Cleaning DCMA's.

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19724	Richmond CA - Refinery	6/9/2011 AM	Closed	Near Loss	FT-220 Flow meter failure	The flow meter for #2 separator (F1-220) failed. Although this is not a parametric meter, over the years it has been used for compliance reporting for separator flow. #2 separator has the V-gly flow limit. In addition, this flow is used to calculate annual throughput limits. This meter has been problematic for several years and has not been replaced. As there are no technicians to verify flow limits, it was decided to not replace the meter. The meter was checked & the meter wasn't repaired. When the meter failed, it indicated a false high reading for the P116g which is used to calculate annual throughput. At this time, an NCV has not been issued.	NL-Regulatory Compliance - Air	(1) The flow meter was not viewed as necessary to verify we stayed in compliance as it was not a parametric meter. It was replaced we could have had it replaced. (2) The Title V CEV page does not include separator flow meters as a means to monitor flow. This page needs to be reviewed and updated. (3) AEU Operations was not aware this meter is used for compliance reporting.
19723	Richmond CA - Refinery	6/10/2011 6:00:00 PM	Closed	Near Loss	Communication breakdown	Did not get fully update on tech oil job status team plan. Failed to follow up, before maintenance left for the day. This left the RST out of the loop as to plant status, dirty valuable contingency plan with on coming day.	NL-Lessons Learned	
19835	Richmond CA - Refinery	6/13/2011 2:00:00 PM	Closed	Near Loss	T-3072 secondary High level alarm cable detached during testing	During monthly testing of the T-3072 (HREF) secondary High level alarm, the cable attached to the counterweight detached from the test arm and fell onto the tank roof.	NL-Operational Process/Procedures - Safety Systems	(1) Unknown root cause. This is an un-common failure however, the system is designed as a fail-safe and will activate an alarm when the contact bounces the tank roof even if the tank is not at a high level
19837	Richmond CA - Refinery	6/13/2011 8:28:00 AM	Closed	Near Loss	Honeywell App Node failure resulted in loss of DMC controllers and GDOT optimizer, degraded system performance	At 8:28 A.M., App Node 30 in DMR West failed, losing communication with the DMC server. After the 10-minute time-out period, all of the DMR West DMC's shutdown. Operations also experienced long graphic loading times for graphics that contained DMC tags, due to the loss of App Node 30.	NL-Business Process - Business Process	(1) System error (\$SV6, Mastio) indicates App Node received a duplicate network message causing the node to stop functioning properly. The reason for the duplicate message is not known.
19849	Richmond CA - Refinery	6/12/2011 12:00:00 PM	Closed	Near Loss	Hydrocarbon at 2A Separator from DEBRU outlet	TOP INVESTIGATION - For complete report, see attached link. INITIAL REPORT: 2 hours after crude tank switch to T-3106/Y-1102, deaerator water to DEBRU visual inspection indicated high hydrocarbon content. V-3212 DEBRU oil atom drum developed high level and had difficulty getting out to CDU feed (normally routed to lower pressure T-3126 or T-3128 but both are out for maintenance). This led to hydrocarbon carryover to filters, plugging of downstream carbon filters and hydrocarbon breakthrough to 2A separator and bio reactor. Bio reactor dissolved oxygen levels dropped and K-10 was turned on to increase oxygen levels. Low oxygen levels lead to killing bioreactor bugs that remove toxic compounds before discharging to bay. Discharging toxic compounds to bay lead to environmental degradation and possible fines.	NL-Quality - Product Quality (m)	(1) SOS: Maintenance & Inspection: Back up tanks to T-3126 were not readily available. T-3126 on recalculation and heating T-3127 blocked in for a separate project T-3144 and heating T-3127 blocked in for a separate project T-3144. (2) SOS: Maintenance & Inspection: Undercoy of oil into water effluent from deaerator. Deaerator did not completely separate water from oil. Deaerator injection could not keep up with unexpected sludge volume. (3) SOS: Design & Engineering: Extra sediment RO had been routed to crude feed tank T-3106. It is not abnormal to route to tanks. Only place it can currently be routed to.
19848	Richmond CA - Refinery	6/12/2011 12:00:00 PM	Closed	Near Loss	Hydrocarbon at 2A Separator from DEBRU outlet	TOP INVESTIGATION - For complete report, see attached link. INITIAL REPORT: 2 hours after crude tank switch to T-3106/Y-1102, deaerator water to DEBRU visual inspection indicated high hydrocarbon content. V-3212 DEBRU oil atom drum developed high level and had difficulty getting out to CDU feed (normally routed to lower pressure T-3126 or T-3128 but both are out for maintenance). This led to hydrocarbon carryover to filters, plugging of downstream carbon filters and hydrocarbon breakthrough to 2A separator and bio reactor. Bio reactor dissolved oxygen levels dropped and K-10 was turned on to increase oxygen levels. Low oxygen levels lead to killing bioreactor bugs that remove toxic compounds before discharging to bay. Discharging toxic compounds to bay lead to environmental degradation and possible fines.	NL-Environmental - Release	(1) SOS: Maintenance & Inspection: Back up tanks to T-3126 were not readily available. T-3126 on recalculation and heating T-3127 blocked in for a separate project T-3144 and heating T-3127 blocked in for a separate project T-3144. (2) SOS: Maintenance & Inspection: Undercoy of oil into water effluent from deaerator. Deaerator did not completely separate water from oil. Deaerator injection could not keep up with unexpected sludge volume. (3) SOS: Design & Engineering: Extra sediment RO had been routed to crude feed tank T-3106. It is not abnormal to route to tanks. Only place it can currently be routed to.
19898	Richmond CA - Refinery	6/16/2011 11:50:00 AM	Closed	Near Loss	unintentional loss of elation due to PRD commissioning	The CGT-900 PSV lined on the 500# steam exhaust header.	NL-Lessons Learned	
19884	Richmond CA - Refinery	6/16/2011 2:30:00 PM	Closed	Near Loss	Particle in the Eye	JVI, while working inside of #4 Solier, fibbox grinding, EE felt something make contact with his eye. EE was wearing their face respirator, safety glasses and a head shield. Particle in eye? Externally Dusty in the box. VV, wearing glasses instead of goggles VV, wearing prescription glasses.	Injury/Illness	(1) Improper PPE. Not wearing a full face respirator or goggles
20117	Richmond CA - Refinery	6/15/2011 9:00:00 AM	Closed	Near Loss	SAS Provided 4 Destructive Respiratory Training Masks	A respiratory training class for 2 CVX new hires was given on 6/15/11. Both were being trained on the use of the Scott AV 300 and North 7600, both full face respirators. During the hands on practice with the North 7600, both EEs removed their masks from their bags. From one bag, a plastic piece belonging to the mask fell out. The other mask had both inhalation valves stuck to their seals not allowing the EE to inhale. A second North 7600 mask was issued for use and while performing a user's inspection, it was noticed gaskets were missing and the exhalation valve was clogged and not sealed properly. A positive pressure test would not have been performed for a face seal and it would have sealed not detecting that the valve was clogged allowing the mask to potentially be exposed. During one hands on practice with the Scott AV300, the mask was found to be difficult to fit snug and the hood of the mask didn't place the face in the mask. Part of the backband warning masks removed from their bags were found to be defective.	NL-Operational Process/Procedures - Safety Systems	(1) INADEQUATE OVERSIGHT OF QUALITY CONTROL FOR THE MAINTENANCE OF RESPIRATORY MASKS

20117	Richmond, CA - Refinery	8/16/2011 9:00:00 AM	Closed	Near Respiratory Training	SSS Provided 1 Defective Mask	seats not allowing the EE to inhale. A second North 7600 mask was issued for use and while performing a user's inspection, it was noticed gasbaskets were missing and the exhalation valve was cocked and not sealed properly. A positive pressure test would end could have been performed for a face seal and it would have sealed not detecting that the valve was cocked allowing the user to potentially be exposed. During the hands on practice with the Scott A-3000, the EE noticed that the 2008 piece was rebuilt at an angle and the couldn't place his face in the mask. Four of six respirator training masks removed from their bags were found to be defective.	NI-Quality - Product Quality (Ex)	(1) INADEQUATE OVERSIGHT OF QUALITY CONTROL FOR THE MAINTENANCE OF RESPIRATORY MASKS
20132	Richmond, CA - Refinery	8/11/2011 12:00:00 AM	Closed	Near Cnt Mnt RM 137	Possible liquid hazard	Due to shut down activity, a large number of office supplies were purchased and temporarily stored in the admin office, CNT MNT RM 137. A contract employee worked around the issue by stepping over and around boxes and at one point the foot struck the corner of one of the large boxes. That is when the contract employee noted the unsafe conditions.	NI-Injury/Illness - Contractor Injury	
20144	Richmond, CA - Refinery	8/8/2011 3:00:00 AM	Closed	Near T-1899 post Empty	High water and chlorides in T-1899	Ship samples from the Energy Century sent from Panama did not indicate high chlorides or water. The ship arrived on late on 8/7 (Sunday) with 380 MB of LSVR. She began discharging the 1st 110 MB into T-1899 at about 03:00 hrs on 8/8 (Monday) and finished at 18:00 hrs on 8/8. She then began to discharge the remaining 270 MB into T-3103 at 18:00 hrs on 8/8. Per S&W Lims, first tank samples on T-1899 were pulled at 18:40 hrs on 8/8. Results from this test were 47 ppm chlorides and the high water (results attached). This tank was left to settle, and then re-sampled on 8/9 at 19:20 hrs (about 24 hrs later). This sample showed chlorides dropped to 24100 ppm (results attached). The high water was still present at 20:00 hrs on 8/9. These results came back acceptable. On Thursday night, after we received the first T-1899 sample results, we made the decision to call FCCC and to allow us additional contingency days for FCCC lead inventory in case T-3103 was bad as well. We were able to start raising FCCC lead back up this morning to make up for any product loss we encountered last night.	NI-Quality - Product Quality (Ex)	(1) Scheduler relied solely on composite Panama samples.
20195	Richmond, CA - Refinery	8/19/2011 8:00:00 AM	Closed	Near T-1899 post Empty	"Polymer like" material causing EE to stumble	While sticky polymer material was discovered all over the left side of the T-1899, the source is currently unknown. Investigation is being.	NI-Lessons Learned	(1) for documentation purposes
20201	Richmond, CA - Refinery	8/18/2011 8:00:00 AM	Closed	Near T-1899 post Empty	While dragging rescue causing EE to stumble	While dragging rescue manikin the strap broke causing EE to stumble feeling a slight pull in his right calf	NI-Injury/Illness - Employee Injury	
20206	Richmond, CA - Refinery	7/29/2011 10:00:00 AM	Closed	Near T-1899 post Empty	Relief offload adjustment was entered incorrectly and 8 days later after our monthly stock count.	A relief offload adjustment (95) was entered incorrectly and after the monthly stock count. The actual amount 345 was entered in the July 01 adj. gain and the incorrect qty. of 2,554 was entered after the count resulting in the books saying we had more qty. available than we truly had. This could have caused a blending problem since the system said we had more than we had. Also an ordering problem. If not caught, this would have also resulted in a book to physical adj. (01) of 2607 gas gain instead of the correct qty. of 53 gallon gain.	NI-Regulatory Compliance - Non Compliance - Policy	(1) What: Book Inventory Loss or Gain Why? Calculations using shipping chart that are unreliable. Why? The process followed led inventory out of balance. Why? There are too many variables with current process. Solution: Review work instructions to reflect receiving additive based on tank file.
20216	Richmond, CA - Refinery	8/19/2011 3:00:00 PM	Closed	Near T-1899 post Empty	K-242 tripped out and K-252 would not start	K-242 was on line and tripped due to power factor. K-252 would not start. Trolizer tripped, but visible flame NOT observed.	NI-Environmental - Release	
20216	Richmond, CA - Refinery	8/19/2011 3:00:00 PM	Closed	Near T-1899 post Empty	K-242 tripped out and K-252 would not start	Trolizer tripped, but visible flame NOT observed.	Equipment/Property Damage	
20226	Richmond, CA - Refinery	8/20/2011 1:00:00 AM	Closed	Near T-1899 post Empty	K-242 tripped out and K-252 would not start	Trolizer tripped, but visible flame NOT observed.	Injury/Illness	(1) Changing Condition, High Winds
20234	Richmond, CA - Refinery	8/19/2011 9:00:00 PM	Closed	Near T-1899 post Empty	K-242 tripped out and K-252 would not start	Trolizer tripped, but visible flame NOT observed.	NI-Operational Process/Procedures - Safety Systems	(1) Low output alarm on 73PC710 Why - leads were plugged (area operator and HIO field verified with local PI) Why - steam tracing was blocked in. (probably not returned to service after start). Why - lack of oversight After maint the steam tracing to 73PC710 was not put back in the way causing the leads to plug during cold weather. The low output alarm activated identifying the issue, so the system worked.
20244	Richmond, CA - Refinery	8/20/2011 2:30:00 AM	Closed	Near T-1899 post Empty	K-242 tripped out and K-252 would not start	Trolizer tripped, but visible flame NOT observed.	Injury/Illness	(1) Body Position, Pinch Points

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20348	Richmond CA - Refinery	8/9/2011 5:00:00 AM	Closed	Loss	Inoperative Monitor was not reported within required time.	actively. In order to correct issue, vendor was contacted and advice was given to provide Maintenance in disabling Channel 1 of the two channels for the monitor. The DCS was never programmed to receive redundant information on Molecular Weight (as well as Pressure and Temperature) and disabling Channel 1 caused a lack of continuous data. Vendor advised HES personnel that data would be logged, but not continuous data. HES Compliance personnel did not report inoperative monitor within the time required.	Environmental	HAD DONE SAME TASK IN THE PAST. INEXPERIENCED MECHANIC WAS UNAWARE OF GUIDELINE. ALTHOUGH GUIDELINE IS NOT REQUIRED, IT IS EXPECTED. (2) SOS MAINTENANCE & INSPECTIONS, PROBE WAS MISALIGNED, PROBE ALIGNMENT MARKS ARE NOT EASILY RECOGNIZED, GROOVES ARE PAINTED OVER. ADDITIONAL MATCH MARKS ADDED OVER TIME.
20348	Richmond CA - Refinery	8/9/2011 5:00:00 AM	Closed	Loss	Inoperative Monitor was not reported within required time.	Flow meter was erroneously reading high flow rates during a minor flaring activity. Vendor was contacted and advised that the flow meter was given to provide Maintenance in disabling Channel 1 of the two channels for the meter. The DCS was never programmed to receive redundant information on Molecular Weight (as well as Pressure and Temperature) and disabling Channel 1 caused a lack of continuous data. Vendor advised HES personnel that data would be logged, but not continuous data. HES Compliance personnel did not report inoperative monitor within the time required.	Regulatory Compliance	(1) SOS TRAINING & PROCEDURES, GUIDELINE WAS NOT USED DURING INSTALLATION. EXPERIENCED MECHANICS FELT COMFORTABLE DOING THE TASK. MECHANIC WAS UNAWARE OF GUIDELINE. ALTHOUGH A GUIDELINE IS NOT REQUIRED, IT IS EXPECTED. (2) SOS MAINTENANCE & INSPECTIONS, PROBE WAS MISALIGNED, PROBE ALIGNMENT MARKS ARE NOT EASILY RECOGNIZED, GROOVES ARE PAINTED OVER. ADDITIONAL MATCH MARKS ADDED OVER TIME.
20435	Richmond CA - Refinery	7/26/2011 12:00:00 AM	Closed	Loss	Inspection batches at #13 separator failed. A BAAQMD VOC inspection	A BAAQMD VOC inspection of all three API separators revealed two batch inspection control at #13 separator with a dump to not be vapor light. They showed VOC levels in excess of the 500 ppm limit.	Environmental	(1) Design of hatch not meant to be vapor light, (2) Currently there isn't a routine duty to document daily Operations inspections of the hatches, (3) ADU was not aware a leak would result in an immediate NOV instead of the normal time allotment given to repair.
20437	Richmond CA - Refinery	8/23/2011 3:30:00 PM	Closed	Near Loss	F-731 tap to run fire while Commissioning P-737A	While pulling P-737A on stand by after returning from maintenance, the pump staffing. After shutting down the pump and adjustments made to the AFS setting, an attempt was made to piece P-737A on AFS again, but the other pump shut down. P-731 went to minimum fire as a result.	NL-Operational Process/Procedures - Safety Systems	(1) Field communication was not clear and led to both pumps being shutdown. Hand signals were used to direct area Operator to shutdown the stand-by pump. The area Operator thought these hand signals were for him to shutdown the primary pump.
20484	Richmond CA - Refinery	8/22/2011 12:00:00 AM	Closed	Near Loss	Station in Refuse Mode and locked out.	Channel 4 had transmitter breakdown due to faulty amplifiers and age.	NL-Operational Process/Procedures - Safety Systems	
20495	Richmond CA - Refinery	8/16/2011 12:00:00 AM	Closed	Near Loss	Point to Point new system Not connecting to Tracking system properly	new Point to Point system testing connectors with the Older tracked system.	NL-Operational Process/Procedures - Safety Systems	
20511	Richmond CA - Refinery	8/24/2011 11:55:00 AM	Closed	Loss	Disabled Aerial Work Platform rolled off side of semi tractor trailer	Two contracted employees, while loading a disabled aerial work platform onto the back of the delivery trailer, had rolled the equipment off the trailer side onto the ground. The disabled work platform was being winched onto the trailer. The hydraulic crane system was disabled. In order to winch aerial work platform onto the trailer, the aerial work platform was on the back of the trailer. The employees had to hold the wheels. When attempting to lift the leading ramp in order to allow the wheels to roll, the tail caused the aerial work platform to move forward, until it rolled off the trailer completely.	Equipment/Property Damage	(1) Why did the manila flip onto the ground? It rolled off the trailer. Why did it roll off the trailer? Rolled forward over insufficient wheel chocks. Why did it roll over the wheel chocks? Wheel chocks were insufficient for the task at hand. Why did we use insufficient chocks? Insufficient chocks were closer at hand. Could have still shifted with sufficient chocks. Potential, in the future, when wheels are cocked to the right+ Derry level, and then alternate means of pickup.
20512	Richmond CA - Refinery	4/9/2011 10:20:00 AM	Closed	Near Loss	Green Card E-340 Oil leak	Green Card Oil leak from top of E-340 to ground level big spill on ground location. Top of E-340.	NL-Environmental - Spill	
20513	Richmond CA - Refinery	8/24/2011 7:45:00 AM	Closed	Near Loss	While getting ready for the work day, the employee noticed his right hand was very sensitive and upon rolling up his sleeve found a red spot on his right wrist with a red streak running up his arm to the elbow. The employee assumed he had been bitten by a spider. Flare Protection was contacted immediately.	Prior to the work activities taking place, employee claimed he was apparently bitten by an insect of the same kind of a reaction or reaction. We cannot confirm via whether or not it is an irritation or insect bite at this time.	NL-Injury/Illness - Contractor Injury	(1) Employee was bitten by some insect outside of the refinery. This is non-occupational. (2) Employee was bitten by an insect off site. This is non-occupational.

20336	Richmond, CA - Refinery	8/24/2011 8:11:00 PM	Closed	Loss	K-1060 Trip caused FCC flare totalizer trip	break and alarms cleared. The Compressor was restarted and Flare gas header pressure quickly returned to normal. During this event the FCC FLOW TOTALIZER TRIPPED AND AN INTERMITTANT VISIBLE FLAME WAS OBSERVED BUT NO AUTOSAMPLE OCCURRED.	Operational Process/Procedures	(1) Procedure not adequate. Not very detailed with no precaution. (2) P-1051 lost action
20601	Richmond, CA - Refinery	8/25/2011 11:30:00 AM	Closed	Loss	Initiation to the eye	Contractor employee complaining of minor irritation and discomfort in the right eye from unknown source.	Injury/Illness	Worker was checked as a precaution.
20601	Richmond, CA - Refinery	8/25/2011 11:30:00 AM	Closed	Loss	Initiation to the eye	Contractor employee complaining of minor irritation and discomfort in the right eye from unknown source.	Injury/Illness - Contractor Injury	(1) Not Job Related: Irritation to the eye was a pre-existing condition that the worker mentioned to EMT's in the area. Worker was checked as a precaution.
20604	Richmond, CA - Refinery	8/25/2011 11:00:00 AM	Closed	Loss	particle in eye	Mechanical pipe filter received dirt particles in his right eye	Injury/Illness	(1) Person removed their goggles and when they removed them a particle drifted into their eye. (2) Person removed their goggles and upon removal a particle drifted into their eye. (3) Worker removed goggles and a particle drifted into his eye.
20604	Richmond, CA - Refinery	8/25/2011 11:00:00 AM	Closed	Loss	particle in eye	Mechanical pipe filter received dirt particles in his right eye	Injury/Illness - Contractor Injury	(1) Person removed their goggles and when they removed them a particle drifted into their eye. (2) Person removed their goggles and upon removal a particle drifted into their eye. (3) Worker removed goggles and a particle drifted into his eye.
20604	Richmond, CA - Refinery	8/25/2011 11:00:00 AM	Closed	Loss	particle in eye	Mechanical pipe filter received dirt particles in his right eye	Injury/Illness - Contractor Injury	(1) No results for Free20 on 5 PIS first hrs prior to resuming load. (2) QCD receives 3 PIS and 4 PIS first hrs. 1 compartment off test for freeze @ -46C. QCD does not notify D&E STL of off test compartment. (3) Richmond using ASTM D5972 and Destination customer using ASTM D2385. D5972 has repeatability of +/- 0.8C and D2385 and repeatability of +/- 2.5C. (4) No results for Free20 on 5 PIS first hrs prior to resuming loading.
20604	Richmond, CA - Refinery	8/25/2011 11:00:00 AM	Closed	Loss	Freeze at destination	125 MB FOB destination JFB cargo loaded on the Oregon Voyager at Richmond 8/19 to 8/21 and received at San Pedro 8/23 was tested out of spec for freeze point and rejected by the customer.	Quality	(1) Half a barrel of diesel spilled to the asphalt. Why? The vacuum truck was over filled. Why? The gauge was sticking and required the driver to stroke the gauge. Why? The driver didn't stop when he noticed the gauge was not functioning properly. Why? Because the driver had done it in the past and there was no negative consequences.
20606	Richmond, CA - Refinery	8/26/2011 9:30:00 AM	Closed	Loss	One half barrel of culter spilled into assigned ground at Culter Road, near Main Street near #1 Power Station	Around 08:50 am at Culter Road near #1 Power Plant at Main Street, 1/2 barrel of culter spilled from a Veolia vacuum truck. Veolia Vacuum trucks have been loading culter at this rack on a routine basis in support of T-3076 sludge removal activity since June, 2011. The truck driver reported checking the final activated level indicator on the side of the truck several times during the loading. At the point where the truck's level indicator was just below 3/4 full, when he poked the gauge with the broom, it shot to full. The driver immediately turned off the truck's vacuum and closed the source valve. It was then that the driver noticed that the culter was overflowing from Pressure Relief Valve located on top of the vacuum truck. Later in the day, after the truck was emptied and opened, it was discovered that the floats arm was sticky when rotating it.	NE-Environmental - Spill	(1) Half a barrel of diesel spilled to the asphalt. Why? The vacuum truck was over filled. Why? The gauge was sticking and required the driver to stroke the gauge. Why? The driver didn't stop when he noticed the gauge was not functioning properly. Why? Because the driver had done it in the past and there was no negative consequences.
20722	Richmond, CA - Refinery	8/28/2011 7:00:00 PM	Closed	Near Loss	FF hit head on smartphone holder clip in rear cab of E-60	While doing weekly inspection on E-60 FF opened and entered rear driverside door to complete air pack inspection and cleaning. While clearing FF hit his headphones and knocked them off of the clip. When FF finished cleaning he backed away and stuck his head on the empty headphones clip on the roof of the compartment causing a laceration to the top of his head. Bandaid was applied to the laceration by another FF.	NE-Injury/Illness - Employee Injury	
20773	Richmond, CA - Refinery	8/28/2011 10:00:00 AM	Closed	Near Loss	Green Card. Fire water valve near T-1088 is unsafe. Location: Pole Yard Tanks	Green Card. Fire water valve located near T-1088 is unsafe due to the steep hillside leading up to valve. During rainy season, hillside is especially slippery. Fire H2O valve #194A. Location: Pole Yard Tanks	NE-Injury/Illness - Employee Injury	
20782	Richmond, CA - Refinery	8/30/2011 8:00:00 AM	Closed	Near Loss	Green Card. Low visibility of storage area. Location: Haz Waste Collection Area	There is a couple of steps at the little railing wall that you have to go up by the Separator trailer in which fluorescent bulbs and computer equipment are stored. They are visible only from bottom of steps and not at the top.	NE-Lessons Learned	
20786	Richmond, CA - Refinery	8/31/2011 1:00:00 AM	Closed	Near Loss	Green Card. Contractor failed to sign a while near driving poddle Location: RLOP/Recovery Rd.	Contractor driving a forklift making a left turn off Channel St into RLOP unit without making any signal by hand or light.	NE-Lessons Learned	
20787	Richmond, CA - Refinery	8/30/2011 7:00:00 AM	Closed	Near Loss	Green Card. Truck driver driving with headlights off. Location: D&R Control Room/Recovery St.	Truck driving with headlights off. It was raining and he was traveling 22 mph. It was clearly visible on radar screen.	NE-Injury/Illness - Contractor Injury	
20788	Richmond, CA - Refinery	8/25/2011 12:30:00 PM	Closed	Near Loss	Green Card. Employee was near not wearing a bike helmet Location: D&R/Recovery	I noticed employees taking their bikes on the road. If one person were to fall off their head hat would not protect their head because there is no strap.	NE-Injury/Illness - Employee Injury	
20788	Richmond, CA - Refinery	8/25/2011 12:30:00 PM	Closed	Near Loss	Green Card. Employee was near not wearing a bike helmet Location: D&R/Recovery	F2S employee bumped a wooden sign at the Fire Drill Grounds while transporting a large pipe spool on F2S goose-neck trailer. The spool extended approximately 2' past the boundary of the trailer allowing it to strike the sign as the trailer moved past. A spooler was present, but on the other side of	NE-Injury/Illness - Employee Injury	

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20833	Richmond, CA - Refinery	6/28/2011 8:10:00 PM	Closed	Loss	Bumped sign at Fire Exits causing minor damage to the sign.	(the trailer, and the driver misjudged the clearance between the trailer and the sign. The sign will need to be re-located to its post, but is otherwise unchanged.	Transportation	(1) Blind spot
20846	Richmond, CA - Refinery	4/29/2011 12:15:00 PM	Closed	Near Loss	Green Card, Operating a manlift without safety harness. Location: D&R	Chayon operating a manlift without a safety harness.	NL-Injury/Illness - Employee Injury	
20847	Richmond, CA - Refinery	4/25/2011 7:16:00 AM	Closed	Near Loss	Green Card, Found out one of the ladders was loose. Location: S. Jemmax E-338 & E-339	When me and my co-worker was doing a JHA walk inspecting the scaffold, we found out one of the ladders was loose.	NL-Injury/Illness - Contractor Injury	
20851	Richmond, CA - Refinery	6/23/2011 8:00:00 AM	Closed	Near Loss	Green Card, Pallets are a tripping hazard. Location: Cracking Annex.	At the south entrance to the Cracking Annex building, pallets of office supplies had been stacked. This is creating a tripping hazard for anyone exiting the building. Additionally, a dog team and their rods are on the other side of entrance making it a crowded area.	NL-Injury/Illness - Employee Injury	
20853	Richmond, CA - Refinery	6/30/2011 11:00:00 AM	Closed	Near Loss	P-1601 tripped causing momentary disruption of feed to DHT	DHT was running steady-state at 21.5M feed rate, AI - 11:00 P-1601 (feed pump) tripped out, resulting in the furnace reducing to min fires. Ops restarted P-1601, and normal feed rate was restored to DHT. Product was NOT routed off last due to the short duration of the outage, and no material was released to the flare.	NL-Equipment/Property Damage - Equipment	(1) No causes determined, electrical checks on motor determined no problems. Instrumentation signal from field to house are adequate. Pump has ran on spare pump program with no issues.
20856	Richmond, CA - Refinery	4/28/2011 11:00:00 AM	Closed	Near Loss	Green Card, Drivng failed truck with bottle caps off. Location: B&S #3 Weld Bay	Green Card - Chevron vehicle driving failed truck with bottle caps off. Bottles should have caps on when not in use.	NL-Lessons Learned	
20858	Richmond, CA - Refinery	4/27/2011 8:30:00 AM	Closed	Near Loss	Green Card, Tank 3106 needs new wind sock. Location: B&S Tank Field	Green Card - Tank 3106 needs a new wind sock.	NL-Lessons Learned	
20860	Richmond, CA - Refinery	5/28/2011 8:30:00 AM	Closed	Near Loss	Green Card, Walkway damaged. Location: B&S, #7 Pump Station	Green Card, #7 Pump Station walkway damaged floor. Exposing hazards. Barricaded area. Needs repair asap. Location: B&S, #7 Pump Station	NL-Injury/Illness - Employee Injury	
20871	Richmond, CA - Refinery	8/31/2011 10:00:00 AM	Closed	Near Loss	Temporary loss for feed to DHT while attempting to put P-149 on line.	Operations were attempting to place P-149 on line after maintenance activity. Flow to the DHT feed pump was temporarily interrupted causing the furnace to go to min fires.	NL-Operational Process/Procedures - Safety Systems	
20872	Richmond, CA - Refinery	4/28/2011 8:00:00 AM	Closed	Near Loss	Green Card, No stop sign posted. Location: On-ramp at the intersection of Channel St. across from scales at 31 Gate	Green Card, At the on-ramp street of Channel across from the scales at 31 Gate and the street joined by the water treatment plant, there is no stop sign at the intersection going either way. Many times I have driven this path and people are crossing the intersection with their vehicle without looking or yielding.	NL-Injury/Illness - Employee Injury	
20873	Richmond, CA - Refinery	4/29/2011 7:15:00 AM	Closed	Near Loss	Green Card, Truck parked on an uneven/sloped grade. Location: D&R of Cooling Tower	Green Card, A truck was parked on an uneven/sloped grade with no room to load the truck so I asked them to move truck.	NL-Lessons Learned	
20877	Richmond, CA - Refinery	4/29/2011 8:00:00 AM	Closed	Near Loss	Green Card, Removing extension cord incorrectly. Location: #8 Plant	Green Card, Observed a fellow worker pulling an extension cord out of the wall by the cord.	NL-Lessons Learned	
20878	Richmond, CA - Refinery	4/27/2011 8:30:00 AM	Closed	Near Loss	Green Card, Dip in asphalt by railroad tracks. Location: Pond area/Castro site	Green Card, Dip in asphalt by railroad tracks has gotten bigger by the front gate. It should be marked for both driving and walking. Location: Pond area/Castro site	NL-Injury/Illness - Employee Injury	
20879	Richmond, CA - Refinery	4/27/2011 10:00:00 AM	Closed	Near Loss	Green Card, Vehicle driving with no caution tape. Location: Channel St.	Green Card, Vehicle driving down Channel St. with pipe extending over the road had no caution tape attached to it.	NL-Lessons Learned	
20880	Richmond, CA - Refinery	4/28/2011 4:30:00 PM	Closed	Near Loss	Green Card, Trash in walkway. Location: Near 91 Gate	Green Card, When going out of walkway by 91 Gate, there was trash in walkway making a tripping and slipping hazard.	NL-Lessons Learned	
20881	Richmond, CA - Refinery	4/28/2011 10:00:00 AM	Closed	Near Loss	Green Card, No traffic control in area. Location: Lots No. 8 Warehouse	Green Card, Warehouse workers were off-loading a truck of pipe, but there was moving traffic. Location: No. 8 Warehouse	NL-Lessons Learned	
20883	Richmond, CA - Refinery	4/28/2011 1:00:00 PM	Closed	Near Loss	Green Card, Contractor leading pipe improperly. Location: Lay down yard	Green Card, A contractor was leading pipe onto trailer with forks other than using ties and slings.	NL-Injury/Illness - Contractor Injury	
20884	Richmond, CA - Refinery	2/24/00 PM	Closed	Near Loss	Green Card, Stop sign down. Location: Zandene and Mill St.	Green Card, Stop sign down at Zandene and Mill Street.	NL-Lessons Learned	

20953	CA - Refinery	5/30/00	Closed	Near Loss	Signs, Location: 91Gate Contractor Parking Lot	Green Card observed traffic not stopping at stop signs posted in parking lot.	NL-Lessons Learned	
20954	Richmond, CA - Refinery	5/26/2011 5:45:00 AM	Closed	Near Loss	Green Card, Smoking in portable outhouse location: Centrifuge Laydown AreaXylene		NL-Lessons Learned	
20959	Richmond, CA - Refinery	5/25/2011 6:35:00 AM	Closed	Near Loss	Green Card, Truck driving with no headlights, Location: Channel and Zylene	Green Card, Truck driving with no headlights, Location: Channel and Zylene	NL-Lessons Learned	
20960	Richmond, CA - Refinery	4/29/2011 11:30:00 AM	Closed	Near Loss	Green Card, Contractor left truck running, Location: North Yard	Green Card, Contractor left truck running while he looked for a valve.	NL-Lessons Learned	
20961	Richmond, CA - Refinery	4/29/2011 2:03:00 PM	Closed	Near Loss	Green Card, Bottles with no caps, Location: B&B733 Tank Pad	Green Card, The oxygen & acetylene rack has bottles in the empty rack with no caps on them. Even though they are in the empty rack, they still need to have caps on them.	NL-Lessons Learned	
20966	Richmond, CA - Refinery	4/29/2011 9:30:00 AM	Closed	Near Loss	Green Card, Contractor without a spotter, Location: Maintenance Bath, RW	Green Card, Contractor was attempting to back a full size van out of a light area without a spotter.	NL-Lessons Learned	
21023	Richmond, CA - Refinery	8/4/2011 8:00:00 AM	Closed	Near Loss	PI data interruption while upgrading flowcell operating system	The PCN flowcell was scheduled for an operating system upgrade on 8/4/2011. The upgrade was a major task and required a lot of preparation and business disruption. After the upgrade was completed, the flowcell was restarted and communication with the main PI server that is located on the DMZ network. The loss of communication disrupted the transfer of plant process information between the PI collector on the PCN and the main PI server located on the DMZ.	NL-Business Process Interruption	
21050	Richmond, CA - Refinery	8/1/2011 10:30:00 AM	Closed	Near Loss	scaffold material came in contact with of switch and shut off pump.	PUMP WAS SHUT OFF BECAUSE EMERGENCY STOPPED THE AUTO OFF SWITCH. REPORTED TO OPERATIONS IMMEDIATELY. THE AUTOMATIC SYSTEM TOOK CARE OF ITSELF. IN THIS SITUATION THE SYSTEM IS SET UP FOR THE ADAPCATOR PUMP TO START AND KICK IN BY ITSELF. THE PUMP DID JUST THAT IT STARTED UP WHEN THE OTHER PUMP WAS SHUT OFF.	NL-Equipment/Property Damage - General Liability	(1) Did not follow Chevron Policy regarding LUSV. They assumed nothing bad would happen, communication of on/off button not addressed.
21069	Richmond, CA - Refinery	8/1/2011 7:35:00 PM	Closed	Loss	MVA, B&B / What pickup truck sustained slight damage to driver's side mirror	Operator couldn't get his TVMC badge (and vehicle push) to register on the PCN network. He got stuck in the TVMC area and was driving on the PCN network. He got stuck in the TVMC area and was driving on the PCN network. He got stuck in the TVMC area and was driving on the PCN network. He got stuck in the TVMC area and was driving on the PCN network.	Equipment/Property Damage	(1) Driver got too close to the TVMC badge reader post and did not maintain safe distance with the TVMC reader post.
21090	Richmond, CA - Refinery	8/29/2011 1:00:00 AM	Closed	Loss	Unloaded CPFS by 1-A&B	P-1 went down on low suction pressure so CPFS operator restarted pump but had to run at half the rate. 20 minutes after the pump loss suction again and could not get enough suction to run it.	Business Process	(1) Tank design of the rundown system is not designed to handle the catalyst in the HCO rundown from FCC. (2) Tank design is not designed to handle catalyst in the rundown system to prevent buildup in T-2210. (3) The tank is not designed to handle the catalyst in the HCO rundown from FCC.
21146	Richmond, CA - Refinery	8/4/2011 8:30:00 PM	Closed	Near Loss	#1 Coats lay changed upon connection to system	#1 Coats lay changed upon connection to hydrant due to valve on engine being left open causing hose to to expand forcing the hose cover open on top of P-1	NL-Equipment/Property Damage - General Liability	
21193	Richmond, CA - Refinery	8/4/2011 1:20:00 PM	Closed	Near Loss	T-2220 SAAB gauge jumped 4 ft in error	The level on T-2220 dropped 13,000 bbls for no apparent reason. Tanks was slowly emptying (~200 bbls) before and after the sudden gauge change. No other tank level changed to account for the discrepancy.	NL-Operational Process/Procedures - Safety Systems	(1) The impact on the reliability of the SAAB reading was not known if the sponge oil was less than 3 ft. Existing procedure is technically right, however, it needs to improve the clarity to cover additional scenarios.
21204	Richmond, CA - Refinery	8/4/2011 8:00:00 AM	Closed	Near Loss	Green Card, Too much oil in the bearing boxes of our Hydro Motor	Green Card, Since the move to 220 neutral lube oil, our oil mist generators seem to be adding way too much oil into the bearing boxes of our equipment. High lube oil levels can be just as bad as no lube oil at all. I fear that if something is not done to correct this issue, soon we may start seeing many bearing failures.	NL-Lessons Learned	(1) Steam traps are left cold if not discovered by operators. The flits of cold traps are not resolved unless by work orders.

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21253	CA - Refinery	2:30:00	Closed	Loss	USE / 150K steam water hammer station later.	Power Plant. The force from the water hammer stifled the fire approx. 3' off the ground. Multiple structures sustained damage.	Equipment/Property Damage	In most cases we only resolve the top 20% of those that are bad order.
21316	Richmond, CA - Refinery	7/26/2011 12:00:00	Closed	Loss	Loss of TKO redundant Honeywell HPM power supplies	At approximately 3pm on July 26th a Control Systems Analyst and a Maintenance Technician bound both primary and secondary Honeywell HPM 24V rear power supplies down in Cabinet 9 located in Hydro R165. Two individual bases from 2 separate USPs were blown resulting in the loss of AC power to both power supplies. The down power supplies supply 24V power to digital field devices.	NL-Business Process Interruption	(1) AC power was lost to (2) redundant Honeywell power supplying power to 24V field outputs. 2 fuses were found blown. (3) The current equipment configuration does provide clear indication that both power supplies are down.
21331	Richmond, CA - Refinery	9/6/2011 8:22:00	Closed	Near Loss	Permit to Operate Check for DVAQMD was not out in timely manner due to conflicting information for DOPA	Prepared GO-1627 for permit to operate check for BAQMD to arrive 9/6/11. The new HES Manager's DOA has not yet transferred over so Air Team Lead suggested another Level 1 employee sign off on GO-1627. GO-1627 was prepared, approved and submitted to Air Rush Desk on Friday, 9/2/11 for delivery on 9/6/11 (due to district on 9/11/11 but wanted to have the check early enough to prepare accompanying letter and send out prior to 9/11/11). Tuesday, 9/6/11 the check approver received an email from the Air Rush Desk stating that they did not have the appropriate level of approval for the check. The approver forwarded the email to me and I contacted the person at the Air Rush Desk who sent it because according to our internal DOA database, the approver of the check had a BSMA DOA. The Rush Desk provided a link to the DOA database they use which is different than ours and when I tried to pull up our approver's name I got no returns.	NL-Business Process Interruption	(1) RiskDB database had not been updated for certain personnel moves.
21332	Richmond, CA - Refinery	9/7/2011 8:00:00	Closed	Near Loss	Green Card, Water cooler has been broken. Location: Hydro Main	Green Card. For approx. two weeks during August and now in September, the Hydro Main, building water cooler has been broken and water has been unavailable to maintenance personnel. We are asked to work in some pretty extreme conditions (high heat).	NL-Lessons Learned	
21347	Richmond, CA - Refinery	8/28/2011 2:00:00	Closed	Near Loss	entry into a confined space	In the process of cleaning T-3076 for its 20 year inspection a contractor entered the tank (confined space and fresh air) not knowing that the air supply to his regulator was not on. He proceeded into the tank with the air from the supply line only. Once he was 20 feet inside the tank he noticed that something was not right with his air. He turned around and started walking toward the entry manway. He failed to turn on his egress pack. As he exited the tank he lost air and pulled his mask off.	NL-Lessons Learned	(1) Employee did not follow egress procedure. (2) Bottle watch did not verify that all supply valves were open before allowing the worker to enter the tank.
21348	Richmond, CA - Refinery	9/27/2011 1:00:00	Closed	Near Loss	7 Boiler S/D - 9/7/11	7 Boiler tripped off-line due to a faulty Woodward Governor. Started back up and will remain I/S until 3 Boiler is up and running. 7 boiler will then be taken O/S for Governor repair.	NL-Equipment/Property Damage - Equipment	
21358	Richmond, CA - Refinery	9/27/2011 12:00:00	Closed	Loss	Employee got particle in the eye while conducting vessel closure.	Employees was performing a vessel closure at a Contractor in the Alky Plant. Walked to north end of equipment to verify drawing information. Gaze of wind picked up dust and blew it into work area. Employee felt discomfort in right eye. Employee was wearing proper PPE (goggles) at the time of the incident.	NI-Injury/Illness	(1) Employee got particle in eye and had to receive first aid. Why? Gaze of wind blew particle in eye despite wearing proper PPE. Why? Natural phenomenon - gusts of wind
21373	Richmond, CA - Refinery	9/27/2011 3:55:00	Closed	Loss	Rodkill area near 7 pump station	While cutting pipe with a diamond blade saw contact employee accumulated dust on his face and in his hair. While removing his PPE employee felt an irritation to one of his eyes.	NI-Injury/Illness - Contractor Injury	(1) Lack of training on removal of PPE
21373	Richmond, CA - Refinery	9/27/2011 3:55:00	Closed	Loss	Rodkill area near 7 pump station	While cutting pipe with a diamond blade saw contact employee accumulated dust on his face and in his hair. While removing his PPE employee felt an irritation to one of his eyes.	Injury/Illness	(1) Lack of training on removal of PPE
21416	Richmond, CA - Refinery	8/8/2011 10:00:00	Closed	Loss	CVX EE had security gate arm come down on vehicle while leaving refinery.	CVX EE was exiting the 31 gate security point with CVX vehicle. EE exited badge, and started to pull through barrier, guard crossing arm. Vehicle was approx. 1/2 through when arm started to come down. Arm struck the top of vehicle, breaking the arm off. No damage was sustained to the vehicle. No injuries were reported.	Equipment/Property Damage	(1) SOS/Attendance & Inspection: BROKEN GATE ARM. Gate arm came in contact with passing vehicle. Gate arm does not recognize passing vehicle. Does not reset timer to allow vehicle to pass under arm. Malfunctioning system/equipment configuration. (2) Station status: Although no malfunctioning equipment caused the arm to come down, the status of the equipment is required to support, to investigate, leaving as the incident is considered a motor vehicle incident. -There are calls related to lost time waiting for personnel responses to incident site (one hour) and the costs of performing tests and sending out to test at outside lab.
21422	Richmond, CA - Refinery	8/4/2011 12:30:00	Closed	Near Loss	Green Card, Steam Leak. Location: FCC North of P-105-B	Green Card, Steam Leak North of P-105-B is causing slippery surface on ground.	NI-Injury/Illness - Employee Injury	
21425	Richmond, CA - Refinery	8/1/2011 2:45:00	Closed	Near Loss	Green Card, Q100 of oil burning on P-105B. Location: FCC	Green Card, Working on E-1020, down wind we can smell the oil burn on P-105B.	NI-Lessons Learned	
21427	Richmond, CA - Refinery	8/1/2011 1:00:00	Closed	Loss	Green Card, Overhead steam leak. Location: FCC - 30' North of P-105B	Green Card, Overhead steam leak needs to be repaired. It makes a very loud noise and dangerous for workers.	NI-Lessons Learned	

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21428	Richmond Refinery	8/12/2011 12:30:00 PM	Closed	Near ladder in the unit. Location: FCC - V-22D	Green Card After lunch I started to walk to my job again and do my LP&A and saw a wooden ladder in the unit.	NL-Lessons Learned	
21429	Richmond Refinery	8/12/2011 4:10:00 PM	Closed	Near walking cell phone. Location: Main Tank Field Road	Green Card Contractor using cell phone on Main Tank Field Road.	NL-Lessons Learned	
21432	Richmond Refinery	8/9/2011 12:00:00 AM	Closed	Near Nauses, Vomiting	Malice: EE suffering from nausea and vomiting, transported to outside hospital for further evaluation and treatment.	NL-Injury/Illness - Contractor Injury	
21433	Richmond Refinery	8/12/2011 12:00:00 PM	Closed	Near Green Card, Excessive wood planks. Location: Alley - V-1410F	Green Card Excessive wood planks left inside vessel making a tripping hazard.	NL-Injury/Illness - Employee Injury	
21434	Richmond Refinery	8/12/2011 2:30:00 PM	Closed	Near Green Card, P-105B is leaking oil. Location: FCC	Green Card P-105B is leaking oil.	NL-Lessons Learned	
21437	Richmond Refinery	8/12/2011 6:45:00 AM	Closed	Near Green Card, Man talking on his cell phone. Location: Channel St.	Green Card Seen a man talking on his cell phone while driving this morning.	NL-Lessons Learned	
21438	Richmond Refinery	8/12/2011 12:10:00 PM	Closed	Near Green Card, Steam leak. Location: FCC - North side of E-102D	Green Card Steam leak at North side of E-102D	NL-Lessons Learned	
21441	Richmond Refinery	8/12/2011 12:00:00 PM	Closed	Near Green Card, Oil in walkway. Location: FCC - 20' North of P-105B	Green Card Oil and my partner were walking out of hot area of E-102D, taking a short break and walk in cool area when we found oil on the walkway.	NL-Lessons Learned	
21442	Richmond Refinery	8/22/2011 11:20:00 PM	Closed	Near Green Card, Steel spn fell on the ground. Location: Ammonia Street	Green Card The spn, Ammonia and Toulouse Street, fell on the ground and it needs to be put back up.	NL-Lessons Learned	
21443	Richmond Refinery	8/22/2011 9:30:00 AM	Closed	Near Green Card, Fort hole leak on oxygen hose. Location: Boiler Shop	Green Card When using a torch, noticed a large bulge on oxygen hose. It had a pin hole leak.	NL-Lessons Learned	
21445	Richmond Refinery	8/22/2011 6:30:00 AM	Closed	Near Green Card, Acetylene gauge low pressure above 15PSI. Location: Boiler Shop	Green Card While hooking up acetylene gauge, I noticed the low pressure side was creeping above 15PSI. Location: Boiler Shop	NL-Lessons Learned	
21446	Richmond Refinery	8/22/2011 9:30:00 AM	Closed	Near Green Card, Steam leak. Location: S. Isomax	Green Card During a job walk I saw a big steam leak comes out from 3/4" steam line next to V-500. Location: S. Isomax	NL-Lessons Learned	
21451	Richmond Refinery	8/9/2011 1:19:00 PM	Closed	Operator experienced sharp pain to lower abdominal quadrant while attempting to don on SCBA	On September 8th, 2011 at approximately 13:20 hrs West Side Operator experienced sharp pain to lower abdominal quadrant while attempting to don on SCBA. SCBA was needed for fresh air job taking place on P-3559.	Injury/Illness	(1) Sharp pain while donning on SCBA
21452	Richmond Refinery	8/22/2011 2:45:00 PM	Closed	Near Green Card, EES did not wear safety glasses. Location: D&B North of Centric Room	Green Card When I drove by the D&B area, I saw two employees working around the carry duct without their hard hats on.	NL-Injury/Illness - Employee Injury	
21454	Richmond Refinery	8/22/2011 10:30:00 AM	Closed	Near Green Card, Not wearing hard hat or safety glasses while driving forklift. Location: O Warehouse	Green Card Not wearing hard hat or safety glasses while driving forklift.	NL-Injury/Illness - Employee Injury	
21457	Richmond Refinery	8/22/2011 8:00:00 AM	Closed	Near Green Card, Company cars are so dirty I could barely see out the window to drive.	Green Card Company cars are so dirty I could barely see out the window to drive.	NL-Lessons Learned	
21458	Richmond Refinery	8/22/2011 9:30:00 AM	Closed	Near Green Card, Respirator not properly stored. Location: AV Gas/Infrack	Green Card Found 1/2 face respirator not properly stored.	NL-Lessons Learned	
21500	Richmond Refinery	8/22/2011 11:30:00 PM	Closed	Near Green Card, Overgrown vegetation growth. Location: Channel Street	Green Card Vegetation growth around digital speed indicator making it difficult to see the digital readout.	NL-Lessons Learned	
21502	Richmond Refinery	8/3/2011 9:30:00 AM	Closed	Near Green Card, Employee not wearing safety glasses. Location: South Isomax	Green Card An employee working in control room signing in and when he walked out of the control room and started walking in the unit, I noticed he wasn't wearing safety glasses.	NL-Lessons Learned	
21503	Richmond Refinery	8/3/2011 4:30:00 PM	Closed	Near Green Card, EE left his truck, exiting with door open. Location: 91 Gate	Green Card An employee stopped the truck and went out to talk to another in front of him. When he walked out he left his truck running and the door open. They tried to pass by and almost hit the door.	NL-Injury/Illness - Employee Injury	

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21505	Richmond CA - Refinery	6/3/2011 AM	7:00:00	Closed	Near Location: Time Field	Green Card, Vehicle passing too close.	Green Card 2 vehicles parked close to Sealand trailer. Another vehicle going too fast while passing between vehicles and trailer. People were standing near vehicle with door open.	NL-Injury/Illness - Contractor Injury	
21505	Richmond CA - Refinery	6/3/2011 PM	6:00:00	Closed	Near Location: Time Field	Green Card, EE taking on cell phone while driving.	Green Card, An employee was talking on a cell phone while driving and he also didn't stop at a stop sign.	NL-Lessons Learned	(1) In 1999, data acquired during inspection found 16.7 MPY corrosion rate. This abnormal and accelerated corrosion rate should have triggered a follow up inspection based on current practices. However, the data was only logged and no follow up performed or information recorded regarding this accelerated corrosion. (2) Not a Root Cause. A Broken Barrier. TEAM field technicians made a judgment call in the field against their company's policy. TEAMS policy requires that field technicians follow written procedures and shall not deviate from them without TEAM engineering approval. (3) Not a Root Cause. A Broken Barrier. QA/QC documents were not signed. (4) Not a Root Cause. All wrap was installed. Current Chevron policy requires that all composite wraps shall have quality control documents to ensure procedures and best practices were followed during installation. (4) Not a root cause or broken barrier. Needs improvement. Investigation team was unable to determine how far back the hydrogen grooving went as the xray film was unavailable for review. Therefore, team could not pinpoint if current inspection techniques would have identified the grooving in 2004 or 2008. The lack of xray results also cannot help to rule out if the hydrogen grooving has been occurring since plant start up in 1950 or if this was a recent phenomenon.
21570	Richmond CA - Refinery	6/11/2011 AM	6:45:00	Closed	Loss	Leak on Fresh acid supply line to connectors.	EE performing end of shift rounds discovered a pinhole leak on the fresh acid transfer line from V-1440 to the connectors. The leak was located on the carbon steel section of the piping.	Environmental	(1) In 1999, data acquired during inspection found 16.7 MPY corrosion rate. This abnormal and accelerated corrosion rate should have triggered a follow up inspection based on current practices. However, the data was only logged and no follow up performed or information recorded regarding this accelerated corrosion. (2) Not a Root Cause. A Broken Barrier. TEAM field technicians made a judgment call in the field against their company's policy. TEAMS policy requires that field technicians follow written procedures and shall not deviate from them without TEAM engineering approval. (3) Not a Root Cause. A Broken Barrier. QA/QC documents were not received once the TEAM composite wrap was installed. Current Chevron policy requires that all composite wraps shall have quality control documents to ensure procedures and best practices were followed during installation. (4) Not a root cause or broken barrier. Needs improvement. Investigation team was unable to determine how far back the hydrogen grooving went as the xray film was unavailable for review. Therefore, team could not pinpoint if current inspection techniques would have identified the grooving in 2004 or 2008. The lack of xray results also cannot help to rule out if the hydrogen grooving has been occurring since plant start up in 1950 or if this was a recent phenomenon.
21570	Richmond CA - Refinery	9/11/2011 AM	5:45:00	Closed	Loss	Leak on Fresh acid supply line to connectors.	EE performing end of shift rounds discovered a pinhole leak on the fresh acid transfer line from V-1440 to the connectors. The leak was located on the carbon steel section of the piping.	Business Process	(1) In 1999, data acquired during inspection found 16.7 MPY corrosion rate. This abnormal and accelerated corrosion rate should have triggered a follow up inspection based on current practices. However, the data was only logged and no follow up performed or information recorded regarding this accelerated corrosion. (2) Not a Root Cause. A Broken Barrier. TEAM field technicians made a judgment call in the field against their company's policy. TEAMS policy requires that field technicians follow written procedures and shall not deviate from them without TEAM engineering approval. (3) Not a Root Cause. A Broken Barrier. QA/QC documents were not received once the TEAM composite wrap was installed. Current Chevron policy requires that all composite wraps shall have quality control documents to ensure procedures and best practices were followed during installation. (4) Not a root cause or broken barrier. Needs improvement. Investigation team was unable to determine how far back the hydrogen grooving went as the xray film was unavailable for review. Therefore, team could not pinpoint if current inspection techniques would have identified the grooving in 2004 or 2008. The lack of xray results also cannot help to rule out if the hydrogen grooving has been occurring since plant start up in 1950 or if this was a recent phenomenon.
21521	Richmond CA - Refinery	6/6/2011 AM	5:45:00	Closed	Near Location: Time Field	Green Card Employee hitting up train. Location: 91 Gate	Green Card An employee had up about 10 cans in the parking lot while he stopped and talked to another employee.	NL-Lessons Learned	
21523	Richmond CA - Refinery	6/6/2011 AM	11:05:00	Closed	Near Location: Time Field	Green Card A truck running with no one in it. Location: By Timec Tool Room	Green Card I saw a truck running with no one in it.	NL-Lessons Learned	
21525	Richmond CA - Refinery	6/9/2011 AM	6:30:00	Closed	Near Location: Time Field	Green Card Contractor not wearing hard hat. Location: B&S TKS076	Green Card A contractor delivery driver forgot to put on hard hat when unloading truck.	NL-Lessons Learned	
21528	Richmond CA - Refinery	6/9/2011 AM	5:45:00	Closed	Near Location: Time Field	Green Card Head a crosswalk for shutdown traffic. Location: NVC of Ammonia Stn. Xylene St	Green Card The 8 Plant Shutdown is here. We have a lot of foot traffic so we need a crosswalk to be updated for us to use in the early morning.	NL-Lessons Learned	
21530	Richmond CA - Refinery	6/15/2011 AM	10:00:00	Closed	Loss	Particulate in the right eye, removed by clinic	Engineer was in the field looking at a job site where work would be performed at an elevated location. When the Engineer looked up, the fall a particulate in his eye. Engineer was wearing prescription safety glasses.	Injury/Illness	(1) Why did Engineer get Particulate in his eye? Because, he looked up when the particulate was falling down. Why? Natural Phenomenon - gravity/angle of head.

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21633	Richmond, CA - Refinery	8/10/2011	5:35:00 AM	Closed	Near parked the wrong way. Location: 81 Gate	Green Card. Two cars parked the wrong way.	Green Card. When I was walking looking for my coworkers, I saw two cars parked the wrong way.	NL-Lessons Learned	
21632	Richmond, CA - Refinery	8/10/2011	8:00:00 AM	Closed	Near Location: 8 Warehouse	Green Card. Contractor had no fall protection on.	Green Card. A contractor performing work on equipment over a 6 ft high had no fall protection on.	NL-Injury/Illness - Contractor Injury	
21633	Richmond, CA - Refinery	8/11/2011	5:00:00 AM	Closed	Near Location: 81 Gate Parking Lot	Green Card. During the wrong way in parking lot	Green Card. A man driving a pickup the wrong way in the parking lot.	NL-Lessons Learned	
21633	Richmond, CA - Refinery	8/11/2011	4:30:00 PM	Closed	Near Location: 81 Gate Parking Lot	Green Card. Replace the stop sign. Location: 81 Gate	Green Card. The stop sign at 144 Xylene St. needs to be replaced. The paint is faded and cannot see the red.	NL-Lessons Learned	
21637	Richmond, CA - Refinery	8/12/2011	7:00:00 AM	Closed	Near wash available. Location: The Ranch Wild Bay	Green Card. No safety eye wash available.	Green Card. We started filling out the hazard and was looking for the safety eye wash and there wasn't one available.	NL-Lessons Learned	
21638	Richmond, CA - Refinery	8/12/2011	12:10:00 PM	Closed	Near railroad tracks without railroad tracks Location: Channel St.	Green Card. Truck crossed railroad tracks without tracks	Green Card. I saw a truck turn to go into Akry-FCC and crossed the railroad tracks without stopping.	NL-Lessons Learned	
21652	Richmond, CA - Refinery	8/12/2011	8:00:00 AM	Closed	Loss T-3162 sample pump blow a oil seal	during his rounds the Operator found less than 1/4 barrel of waxy oil under the sample pump at T-3162	NL-Environmental - Operational Leak	(1) Heat tracing and insulating flanges is not a standard practice	
21652	Richmond, CA - Refinery	8/12/2011	8:00:00 AM	Closed	Loss T-3162 sample pump blow a oil seal	during his rounds the Operator found less than 1/4 barrel of waxy oil under the sample pump at T-3162	Environmental	(1) Heat tracing and insulating flanges is not a standard practice	
21657	Richmond, CA - Refinery	8/12/2011	11:30:00 AM	Closed	Loss Contract employee noticed what looked like a bug bite on left wrist	Bug bite on left wrist	NL-Injury/Illness - Contractor Injury	(1) Possibly insect was in glove	
21657	Richmond, CA - Refinery	8/12/2011	11:30:00 AM	Closed	Loss Contract employee noticed what looked like a bug bite on left wrist	Bug bite on left wrist	Injury/Illness	(1) Possibly insect was in glove	
21658	Richmond, CA - Refinery	8/12/2011	10:00:00 AM	Closed	Loss pinhole leak in the 12-3 what line	Operator discovered a small amount of heavy oil in pipeway during his rounds. He reported this finding to his HO and after investigating they found the 12-3 what line weeping.	Environmental	(1) Pipe support was notched out, trapped water and soil to created the corrosion mechanism.	
21708	Richmond, CA - Refinery	8/15/2011	8:00:00 AM	Closed	Near Green Card. Crew not trained properly. Location: BAS T-3076	Green Card. Crew is not trained properly on how to use breathing air trailers.	NL-Lessons Learned		
21711	Richmond, CA - Refinery	8/15/2011	8:00:00 AM	Closed	Near Green Card. Rental bottle because of small wheels and no breaks. Also top heavy and hard to move in gravel.	Green Card. Rental bottle can almost dropped from truck being unbraked because of small wheels and no breaks. Also top heavy and hard to move in gravel.	NL-Lessons Learned		
21712	Richmond, CA - Refinery	8/12/2011	10:30:00 AM	Closed	Loss Green Card. Contractor used handwash portable to wash his hands.	Green Card. Contractor used handwash portable to wash his hands.	NL-Lessons Learned		
21713	Richmond, CA - Refinery	8/12/2011	8:30:00 AM	Closed	Loss Green Card. Temporary stop sign has fell over. Location: 8 Warehouse	Green Card. At the intersection of Main and Channel at 8 Warehouse, the temporary stop sign has fell over.	NL-Lessons Learned		
21716	Richmond, CA - Refinery	8/11/2011	4:30:00 PM	Closed	Loss Green Card. Semi truck and trailer traveling too fast. Location: RLP - Mill St. curves	Green Card. Noticed a semi truck and trailer traveling too fast. This is a 15mph zone. It is clearly posted.	NL-Injury/Illness - Contractor Injury	(1) Several gallons of sludge and wash water were spilled when residual liquid sprayed out of a cargo hose onto the tank and the asphalt surface underneath the tank. The hose, which was being used to transfer the sludge between tanks, was disconnected from the tank after it had been cleared of bulk liquids but while it was still under pressure. Pressure excess pressure had not been fully vented per procedure using the bleeder valve and remaining pressure was released abruptly as the line was disconnected. Worker climbed the thought pressure was fully released when he closed the bleeder valve. Conclusion reached is that worker's manner of executing the procedure for clearing lines and venting pressure had not been properly followed, but up to that point	

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21719	Richmond CA - Refinery	8/13/2011 11:00:00 AM	Closed	Near Loss	Contractor spills 2-3 gallons of tank sludge to secondary containment during transfer operation.	After transferring sludge between tanks in the Haz Waste Annex, contractor(s) failed to fully clear and depressurize the portable cargo hose used for the transfer. Upon disconnecting the hose to connect and fill another tank, approx. 2-3 gallons of tank sludge was spilled from the hose to the secondary containment (asphalt).	NL-Environmental - Spill	In his experience had not resulted in significant pressure relieving in the hose. (2) Hydrocarbon-containing tank bottoms being sprayed a portable tank and the asphalt while still under pressure. Material did not spray the worker operating the line, but it could have depending on the amount of water, the force of released pressure, and the location of the worker. The worker was not wearing a face shield while he was performing the disconnection. The procedure PPE did not call for a face shield for line disconnection. The procedure contains proper steps to release pressure prior to line disconnection, but does not accommodate extra PPE needed in the event that the operator fails to completely vent the line.
21722	Richmond CA - Refinery	8/12/2011 10:55:00 AM	Closed	Near Loss	Green Card Employee did not have a seatbelt on. Location: FCC Control Room Parking Lot	Green Card. An employee and a passenger in vehicle and did not have their seatbelt on.	NL-Lessons Learned	
21727	Richmond CA - Refinery	8/12/2011 11:15:00 AM	Closed	Near Loss	Green Card. Need a benchtable to set our backhoe Trencher next to Trench Tool Room	Green Card. We need a bench and a table to set our lunch by the Trench Tool Room.	NL-Lessons Learned	
21728	Richmond CA - Refinery	8/12/2011 PM 2:00:00	Closed	Near Loss	Green Card. Steam leak. Location: S. Isomax C-130	Green Card. Steam leak near Column 130. Manifold leaking steam.	NL-Lessons Learned	
21731	Richmond CA - Refinery	8/7/2011 10:00:00 AM	Closed	Near Loss	Green Card. Deck is raised through. Location: D&R, Top Deck of V-1650	Green Card. Deck is raised through at North end of deck.	NL-Lessons Learned	
21735	Richmond CA - Refinery	8/12/2011 11:04:00 AM	Closed	Near Loss	Operator was sprayed with DEBRU/DEVOP mix water while attempting to backflush carbon drum in DEBRU. DEBRU water is process water that has <0.5PPM benzene and DEVOP water is firewater. Potential exposure below PEL limits for benzene. The operator hooked up firehose to carbon drum, cracked open valve on drum then cracked open the ball valve on the firehose to begin backflush. After cracking open valve on drum DEBRU water leaked slightly out of camlock, firehose connection. Operator continued task by opening ball valve despite leak. While opening ball valve, water sprayed out and hit the operators face and hands. This water spray was mostly firewater, but action was taken to backflush carbon drum. DEBRU water was present. Operator was wearing normal PPE (hard hat, nongear, ear plugs, boots, and safety glasses). After finished STL, the operator checked the ball valve and found the camlock o-ring was missing. Without the o-ring the camlock and firehose connection was leaking. The operator was sprayed with DEBRU/DEVOP mix water while attempting to ensure equipment is fit for service. If equipment is broken/misusing parts the operator will not use until fixed/replaced.	NL-Lessons Learned	(1) Operator did not check if the camlock o-ring was in place before connecting firehose. (2) SOS: Training & Procedures: Operator Was Sprayed With DEBRU/DEVOP water. Hose Connection Leaked/Sprayed. No "O" Ring in Camlock Hose Connection. Job Aid missing step to check for "O" Ring. (3) SOS: Personal Protective Factors: Operator Did Not Check For Gasket. (4) Safety Issues: Training & Procedures (Information Resources): - Had the operator been aware that the "O" Ring was missing, it is unclear when to get a replacement, especially at 0415, other than to get a work order for appropriate personnel (tool room) to service the Cam-locks, delaying the back flush of the carbon drums.	
21788	Richmond CA - Refinery	8/14/2011 4:15:00 AM	Closed	Near Loss	Operator sprayed on face and hands with DEBRU/DEVOP mix water	Operator was sprayed with DEBRU/DEVOP mix water while attempting to backflush carbon drum in DEBRU. DEBRU water is process water that has <0.5PPM benzene and DEVOP water is firewater. Potential exposure below PEL limits for benzene. The operator hooked up firehose to carbon drum, cracked open valve on drum then cracked open the ball valve on the firehose to begin backflush. After cracking open valve on drum DEBRU water leaked slightly out of camlock, firehose connection. Operator continued task by opening ball valve despite leak. While opening ball valve, water sprayed out and hit the operators face and hands. The water spray was mostly firewater, but action was taken as if benzene from DEBRU water was present. Operator was wearing normal PPE: gloves, hard hat, nongear, ear plugs, boots, and safety glasses. After incident STL, and operator reviewed job and found the camlock o-ring was missing. Without the o-ring the camlock can leak. In the future the operator has agreed to check firehose and camlock connection to ensure equipment is fit for service. If equipment is broken/misusing parts the operator will not use until fixed/replaced.	NL-Injury/Illness - Employee Injury	(1) Operator did not check if the camlock o-ring was in place before connecting firehose. (2) SOS: Training & Procedures: Operator Was Sprayed With DEBRU/DEVOP water. Hose Connection Leaked/Sprayed. No "O" Ring in Camlock Hose Connection. Job Aid missing step to check for "O" Ring. (3) SOS: Personal Protective Factors: Operator Did Not Check For Gasket. (4) Safety Issues: Training & Procedures (Information Resources): - Had the operator been aware that the "O" Ring was missing, it is unclear when to get a replacement, especially at 0415, other than to get a work order for appropriate personnel (tool room) to service the Cam-locks, delaying the back flush of the carbon drums.
21809	Richmond CA - Refinery	8/16/2011 8:30:00 AM	Closed	Near Loss	Green Card. 116 steam line has leak. Location: BAS 116 Steam Line	Green Card. 116 Steam Line has a leak.	NL-Lessons Learned	
21810	Richmond CA - Refinery	8/16/2011 8:45:00 AM	Closed	Near Loss	Green Card. Flatbed truck holding up a pedestal. Location: 91 Galle	Green Card. When I was walking into Galle 91 this morning, I saw a flatbed truck stop on the other side holding traffic up, picking up another employee. The traffic was heavy. The employee didn't stop and look when he ran across to catch the ride.	NL-Lessons Learned	

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21811	Refinery	CA - Refinery	5:30:00 AM	Closed	Near Location: 91 Gate	Green Card. When I got to the parking lot this morning, a black truck in back of me didn't have their headlights on.	NL-Lessons Learned	
21812	Refinery	CA - Refinery	8:00:00 AM	Closed	Near Location: 144 Xylene St.	Green Card. A large crane traveling without an escort. The crane was merging into an oncoming lane.	NL-Lessons Learned	
21813	Refinery	CA - Refinery	8:45:00 AM	Closed	Near Location: 144 Xylene St.	Green Card. Need to replace the stop sign at 144 Xylene St. The sign is facing away from the stop.	NL-Lessons Learned	
21815	Refinery	CA - Refinery	8:00:00 PM	Closed	Near Location: Asphalt Plant	Green Card. Found a pipe shoe sitting unsecured atop existing 20' high structure. Pipe shoe was not attached to or supported by anything.	NL-Injury/Illness - Employee Injury	
21816	Refinery	CA - Refinery	8:35:00 AM	Closed	Near Location: Channel St.	Green Card. A security truck driving down Channel St. didn't have their headlights on.	NL-Lessons Learned	
21817	Refinery	CA - Refinery	9:20:00 AM	Closed	Loss	Fresh air equipment was not delivered to the job. A truck had to be delayed until the following day.	Business Process	(1) Inefficient logistics to get fresh air equipment to jobsite in a timely manner
21819	Refinery	CA - Refinery	8:18:2011 AM	Closed	Near Location: Channel St.	Green Card. Four long scaffold pipes came unattached, rolling into the street. Traffic was moving slow, no cars were hurt.	NL-Injury/Illness - Contractor Injury	
21821	Refinery	CA - Refinery	8:19:2011 AM	Closed	Near Location: SW corner of Xylene St and Channel St.	Green Card. Bridge 145 on corner of Xylene/Channel is missing some grading.	NL-Lessons Learned	
21823	Refinery	CA - Refinery	8:45:00 AM	Closed	Near Location: Main Sulfur Road	Green Card. A truck is speeding up.	NL-Lessons Learned	
21824	Refinery	CA - Refinery	8:22:2011 PM	Closed	Near Location: Standard St	Green Card. A grid did not make a full stop at stop sign.	NL-Lessons Learned	
21825	Refinery	CA - Refinery	2:15:00 PM	Closed	Near Location: FOC Control Room	Green Card. A van trying to back out without a backup alarm and also didn't have a backup light.	NL-Lessons Learned	
21827	Refinery	CA - Refinery	5:50:00 AM	Closed	Near Location: Xylene Street	Green Card. Empty in the morning a lot of workers wearing dark clothing and trying to cross the street with a lot of traffic and we don't have a crosswalk to let drivers know to slow down.	NL-Lessons Learned	
21828	Refinery	CA - Refinery	8:22:2011 AM	Closed	Near Location: Asphalt Plant SIO Trailers	Green Card. Multiple employees working at heights without fall protection or hard hats.	NL-Injury/Illness - Employee Injury	
21831	Refinery	CA - Refinery	8:24:2011 AM	Closed	Near Location: Green Card Missing guard	Green Card. Access steel from scalehouse there is a bridge #145 with missing steel guardrail on both side coming in from 31 Gate.	NL-Lessons Learned	
21846	Refinery	CA - Refinery	9:12:2011 PM	Closed	Near Location: Off-site sulfur in diesel	Switched DHT Cold feed from T-1492 to T-1493 at 13:00 8/12/2011. Maintained cold feed rate of 10MBD, raised CAT from 615F to 625F in anticipation of tank switch. By 18:30, sulfur analyzer had trended up to 20ppm and then DSL. TL was routed off test. Continued firing CAT to 640F and reduced cold feed to 5MBD. Ratched back on test at 22:45. Cold feed rates were increased back to 10MBD, causing several hours of off-spec product later in the shift until cold feed was reduced again. Similar issues with cold feed switches were seen during the week of 8/15/11.	NL-Quality - Product Quality (ppm)	(1) In the past, crews have seen that a 5-10F increase CAT has been sufficient to handle changes to cold feed qualities. There is a lack of experience in processing input feeds with qualities that are different than normal 350C.
21866	Refinery	CA - Refinery	7:21:2011 AM	Closed	Near Location: V-451 Sulfur	V-451 Sulfur. Sulfur changeout was submitted as extra work to the 4Q11 shutdown. V-451 was last changed during August 2010 (scope input for Major was June 2010). Typical run lengths are 1.5-2 years between changeouts. This was anticipated to tie up with a 1Q12 Rhen regen. Sulfur's loading quicker than expected and the Rhen reformer run lengths have extended to 1+ years. This provided the changeout to be requested as extra work.	NL-Business Process Business Process	(1) In Feb 2014, V-451 was anticipated to be at Best Practice loading (8%) in Feb 2012. By July 2011, the 8% loading limit is projected to be reached in late Nov 2011. TKN light and medium sulfur levels have increased in recent months. (2) Rhen reformer run lengths are continuing to be extended as sulfate requirements are lowered. This provides fewer opportunities to tie up V-451 changeouts to a region.
21873	Refinery	CA - Refinery	9:19:2011 AM	Closed	Loss	Tube leak on E-711 fractionator overhead	Equipment/Property Damage	(1) Water injection below minimum nozzle shutdown, (2) Strained flow regime resulted in liquid in the bottom of the tubes and vapor in the top of the tubes, (3) V717A not controlling sour water removal from V717, equipment problem. May be undersized.

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21978	Richmond, CA - Refinery	9/15/2011 12:09:00 AM	Closed	Loss	Tube leak on E-711 fractionator overhead	Tube leak on E-711 fractionator overhead	Business Process	(1) Water injection below minimum nozzle rundown. (2) Strained flow regime resulted in liquid in the bottom of the tubes and vapor in the top of the tubes. (3) V-171A not controlling sour water removal from V-171, equipment problem. May be undetected.
21928	Richmond, CA - Refinery	9/15/2011 5:00:00 AM	Closed	Loss	K-1100A leak on 2nd stage loader.	Upon entering at the control room at shift change, operators smelled the strong odor of process gas on the street when exiting the area. J2S and C-102S Unit find the leak. The gas tester passed out when approaching the compressor area to find the leak. The decision was made to shut down the compressor and called Chevron fire to respond.	Loss of Containment	(1) The shop procedure and guidance from the refinery Rotating Equipment Reliability team has a torque value for the cover and not the jam nut. Machinists apply torque to the jam nut based on tool, they do not want to over torque the equipment because it is cast material. (2) The design of the unitheader on K-1100A allows an operator to turn the valve underheader past the position where the plate valve is closed and into the compressor pressures and there is no way for operators to know when they have reached the desired position.
21929	Richmond, CA - Refinery	9/15/2011 5:00:00 AM	Closed	Loss	K-1100A leak on 2nd stage loader.	Upon entering at the control room at shift change, operators smelled the strong odor of process gas on the street when exiting the area. J2S and C-102S Unit find the leak. The gas tester passed out when approaching the compressor area to find the leak. The decision was made to shut down the compressor and called Chevron fire to respond.	Equipment/Property Damage	(1) The shop procedure and guidance from the refinery Rotating Equipment Reliability team has a torque value for the cover and not the jam nut. Machinists apply torque to the jam nut based on tool, they do not want to over torque the equipment because it is cast material. (2) The design of the unitheader on K-1100A allows an operator to turn the valve underheader past the position where the plate valve is closed and into the compressor pressures and there is no way for operators to know when they have reached the desired position.
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21930	Richmond, CA - Refinery	9/15/2011 5:00:00 AM	Closed	Loss	Green Card, Employee not wearing a flashlight, location: FCO, E-150	Green Card, I went in front of E-1020 getting tools I saw an employee working with an impact gun without a flashlight on.	Environmental	(1) The shop procedure and guidance from the refinery Rotating Equipment Reliability team has a torque value for the cover and not the jam nut. Machinists apply torque to the jam nut based on tool, they do not want to over torque the equipment because it is cast material. (2) The design of the unitheader on K-1100A allows an operator to turn the valve underheader past the position where the plate valve is closed and into the compressor pressures and there is no way for operators to know when they have reached the desired position.
21941	Richmond, CA - Refinery	9/15/2011 12:00:00 AM	Closed	Near Loss	Signaling between Repeater channels	Weak control signaling between Trunking Controller and Channels causes intermittent behavior.	NL-Operational Process/Procedures - Safety Systems	
21943	Richmond, CA - Refinery	9/15/2011 12:00:00 AM	Closed	Near Loss	Intermittent Radio Operation during the Night	Chemists operating intermittently	NL-Operational Process/Procedures - Safety Systems	
21992	Richmond, CA - Refinery	9/15/2011 12:00:00 PM	Closed	Near Loss	Employee slipped and fell	Employee slipped and fell - bruised tailbone	NL-Injury/Illness - Employee Injury	(1) Employee slipped and fell in cafeteria. Why - employees were rushing. Why - Employee fell pressure to complete task was high. Why - Perceived pressure was on part of employee (fell they had a lot to do)
21995	Richmond, CA - Refinery	9/15/2011 12:00:00 PM	Closed	Near Loss	Employee scraped calf	Employee scraped calf slightly	NL-Injury/Illness - Employee Injury	(1) Employee scraped calf May - employee slipped and came into contact with pedal on stationary bike. Why - employee slipped because they were hurrying and not fully concentrating on immediate task. Why - employee trying to multi-task and let their attention wander. Why - employee fell under self-imposed pressure to complete several tasks in short order
21998	Richmond, CA - Refinery	9/14/2011 12:00:00 AM	Closed	Near Loss	wrong stem was supposed to be 347 PMI at 650as	While performing the PMI function the material (stem) did not meet the specifications. Stem was supposed to be stainless steel 347, material was wrong alloy stainless steel 680	NL-Quality - Incorrect Product	

22030	Richmond, CA - February	6:05:00 PM	Closed	Loss	EE entered knees	While getting back into a vehicle the EE got a ting in their left knee.	Injury/Illness	(1) EE entered vehicle without following proper ergonomic techniques
22033	Richmond, CA - February	6:18:20:11 5:30:00 PM	Closed	Loss	On 8/16/11 Juan Medina was transporting a spent catalyst bin to the clean harbor yard and when the bin was to be placed on the ground he noticed that there was smoke coming from the back of the bin he noticed Tina and Jose and Tina immediately got the temperature gun to take the temperature of the bin and Tina noticed the temperature was at 140 degrees and Tina notified the supervisor and Ren Allen. Tina called the supervisor and Ren Allen said he was on his way. The bin was flooded by plant protection.	On 8/16/11 Contractor was transferring bin # 20180 from BSA to the Clean Harbor yard for fire-alarm. When he was putting the bin in place he noticed a strong odor from the bin and the bin was smoking from the back side. Another Technician immediately took the temperature using the temperature gun came up with 189 degrees Celsius reading. He immediately notified his supervisor and was advised to call Plant Protection for assistance. Plant Protection arrived and located the open bin with water.	NL-Fire/Explosion	(1) Inadequate procedures, i.e., temperature monitoring for containers containing potentially self-heating material. (2) Inappropriate use of container, i.e., roll off bin, for potentially self-heating material.
22034	Richmond, CA - February	6:52:00 PM	Closed	Minor Loss	Tipped FCC Isolator 8/17/11 @ 1850 hrs	At ~ 1855 the COA noticed flow increase to EGR compressors, called on radio to SISO & NISO operators to check if anyone was working behind COA requested that second EGR compressor K1070 be started, after a few minutes flow began to decrease.	NL-Environmental - Release	(1) Unidentified specific source. TKN was in start up mode related to V705 overhauled single EGR compressor before second compressor could be started.
22035	Richmond, CA - February	9:18:20:11 10:25:00 AM	Closed	Loss	While attempting to open a 10" valve, BAS operator fell discomfited in his/her lower back.	While attempting to open a 10" valve, BAS operator fell discomfited in his/her lower back. The operator lubricated the valve before attempting to open it and used a pulser.	Injury/Illness	(1) Condition of valve hand wheel extension (toos) accepted as normal. (2) Others in the area are in the same condition
22075	Richmond, CA - February	7:30:00 AM	Closed	Loss	Puncture wound to hand	Mechanic was in the process of replacing carbide inserts in a milling tool when the screwdriver for the insert release slipped causing a cut on his hand.	Injury/Illness	(1) Damaged or wrong tool for the job. Mechanic thought that the tool was worn so he ground off the worn area and tried to remove the faster again.
22117	Richmond, CA - February	9/12/2011 12:00:00 PM	Closed	Minor Loss	CLM spare parts unavailable	During a planning session for the Pascagoula BAS Software upgrade, we were told that a critical part required for the upgrade was being delayed so they ask if other Chevron site could loan them the required part for the upgrade until their order was received. Chevron Richmond went through the process of checking their inventory and found no such parts causing a big concern since this indicated that they had no spare parts for their running CLM on hand.	NL-Quality - Product Unavailable	
22123	Richmond, CA - February	9/19/2011 3:00:00 AM	Closed	Loss	Leak 255 line	Discovered a leak 255 line on Petrolia Street.	Environment	(1) To be identified after the pipe failure analysis, (2) To be identified after the pipe failure analysis
22167	Richmond, CA - February	9/19/2011 3:00:00 AM	Closed	Minor Loss	Hot spots discovered on both sides of a south riser of #3 boiler.	TOP INVESTIGATION (SEE LINK FOR FULL TOP DESCRIPTION/REPORT). INITIAL REPORT: While performing a walk through (PSSR) on neighboring #4 bit hot spots were discovered on #3 Boiler, both north and south sides, approximately midway on the riser. In at least one location the hot spot had burned through completely. Operating normally on negative draft kept combustion contained within boiler.	NL-Equipment/Property Damage - Equipment Damage	
22199	Richmond, CA - February	9/21/2011 11:00:00 AM	Closed	Minor Loss	Using ladder without fall protection. Location: New Hydrogen Project	Green Card. Contractor working the new hydrogen project at the Y. Contractor using a ladder plus standing on rooftop without fall protection.	NL-Injury/Illness - Contractor Injury	
22200	Richmond, CA - February	8/31/2011 10:00:00 AM	Closed	Minor Loss	Working without fall protection. Location: North Yard	Green Card. Contractor walking on rooftop without fall protection. Walking on scaffolding.	NL-Injury/Illness - Contractor Injury	
22201	Richmond, CA - February	8/31/2011 8:00:00 AM	Closed	Minor Loss	Green Card. Contractors walking toward unit with H2S alarm. Location: North Yard	Green Card. Three contractors walking toward unit with H2S alarm.	NL-Lessons Learned	
22202	Richmond, CA - February	8/31/2011 8:00:00 AM	Closed	Minor Loss	Green Card. Truck having problems backing out. Location: Warehouse	Green Card. Large truck at Warehouse having problems backing out. Several cars creating a traffic jam.	NL-Lessons Learned	

22204	Richmond, CA - Refinery	8/31/2011 6:15:00 AM	Closed	Near Loss	Green Card, Traffic does not see pedestrians crossing street. Location: 91 Gate	Green Card, I crossed the street and a car went through and did not spot me. Location: 91 Gate	NL-Lessons Learned	
22210	Richmond, CA - Refinery	8/31/2011 1:45:00 PM	Closed	Near Loss	Green Card, Employee working on scaffold with no safety harness. Location: FCC E-102B	Green Card, Employee working on top of scaffold 12' high, yellow tag 100% life off, with no safety harness in position.	NL-Injury/Illness - Employee Injury	
22211	Richmond, CA - Refinery	8/31/2011 6:20:00 AM	Closed	Near Loss	Green Card, Truck driving with headlights off. Location: Zylene St - Contractors Parking Area	Green Card, Truck driving with headlights off. Too dark and a lot of pedestrians walking this time of morning.	NL-Lessons Learned	
22212	Richmond, CA - Refinery	8/31/2011 5:30:00 AM	Closed	Near Loss	Green Card, Pedestrian not using the crosswalk flashing lights. Location: Gate 91	Green Card, Pedestrian was walking out in front of vehicles in the crosswalk without hitting the button for flashing light warning.	NL-Lessons Learned	
22213	Richmond, CA - Refinery	8/31/2011 4:35:00 PM	Closed	Near Loss	Green Card, Employee driving the wrong way. Location: Gate 91	Green Card, When I was clocking out and walking to my car I saw an employee driving out of the parking lot the wrong way.	NL-Lessons Learned	
22214	Richmond, CA - Refinery	8/31/2011 4:28:00 PM	Closed	Near Loss	Green Card, Employee driving too fast near crosswalk. Location: Pedestrian crosswalk by Newtons	Green Card, Employee driving toward crosswalk going too fast, would not slow down before we crossed.	NL-Injury/Illness - Employee Injury	(1) a. Lack of understanding, training, and guidance with in OED what repairs are considered code repairs with original equipment. (2) b. Lack of understanding and training with the Planning and Scheduling group with the details of weld procedures and who should be doing the weld in a manner appropriate for the personnel welders. Personnel doing work and the weld inspectors are provided with the work package. Problem not mitigated
22215	Richmond, CA - Refinery	8/15/2011 2:00:00 PM	Closed	Near Loss	TIMEC welders were tasked to weld on a cold repair using a BFM weld procedure	TIMEC welders were tasked to weld on a cold repair using a BFM weld procedure	NL-Environmental - Release	
22216	Richmond, CA - Refinery	8/28/2011 8:00:00 AM	Closed	Near Loss	Green Card, Employee not wearing located shield while using impact gun. Location: FCC E130	Green Card, Employee not wearing a face shield while using an impact gun.	NL-Injury/Illness - Employee Injury	
22218	Richmond, CA - Refinery	8/28/2011 4:05:00 AM	Closed	Near Loss	Green Card, An employee didn't use crosswalk light. Location: Gate 91	Green Card, An employee didn't use crosswalk light to walk across to the other side and his shirt was flaring in the dark with dark coveralls on.	NL-Injury/Illness - Employee Injury	
22219	Richmond, CA - Refinery	8/28/2011 6:30:00 AM	Closed	Near Loss	Green Card, Semi truck and trailer driving with back doors loose. Location: RLP Loading Racks	Green Card, Semi truck and trailer driving with back doors loose. Doors moving back and forth. Doors should be secure when driving.	NL-Lessons Learned	
22221	Richmond, CA - Refinery	8/28/2011 2:00:00 PM	Closed	Near Loss	Green Card, No slings used for rigging a come along. Location: FCC	Green Card, There is a come along holding a 6" insulated pipe. The come along is over the hot hook and the chain is wrapped around insulation. No slings being used for rigging.	NL-Lessons Learned	
22223	Richmond, CA - Refinery	8/28/2011 7:30:00 AM	Closed	Near Loss	Green Card, Street sign fell down on back road. Location: Almonda & Toline	Green Card, Street sign fell down on back road.	NL-Lessons Learned	
22224	Richmond, CA - Refinery	8/28/2011 1:55:00 PM	Closed	Near Loss	Green Card, Rope supporting a 2" pipe. Location: FCC	Green Card, There is rope supporting a 2" pipe on the south side of E-102-B.	NL-Lessons Learned	
22226	Richmond, CA - Refinery	8/28/2011 9:30:00 AM	Closed	Near Loss	Green Card, A plate ready to fall off of E-131AAB. Location: FCC	Green Card, There is a plate about 3' tall and 8" wide, 1/4" thick with the name Braun on it that is ready to fall off of E-131 AAB. It could really hurt someone.	NL-Injury/Illness - Employee Injury	
22227	Richmond, CA - Refinery	8/28/2011 4:00:00 PM	Closed	Near Loss	Green Card, Contractor. Near had no headlamps and safety glasses on. Location: FCC	Green Card, A contractor in unit with no head hat, no glasses and on cell phone.	NL-Injury/Illness - Contractor Injury	
22228	Richmond, CA - Refinery	8/28/2011 6:30:00 AM	Closed	Near Loss	Green Card, Stop sign was laying down. Location: Corner of Main & Main St.	Green Card, The stop sign was laying down. This is a portable sign supported by concrete in a bucket. High winds knocked it down.	NL-Lessons Learned	

[illegible]

22429	Refinery	PM	Closed	Loss	P-1453 Birding.	Operator has chest pains and breathing issues. He said he had a appointment at the doctor at 1:00pm for the issue. Concern if he was able to drive to appointment. Plant protection took his vitals and said he was able to drive to the hospital to see the doctor.	Safety Systems	(1) Communication between day shift and night shift not clear
22468	Richmond, CA - Refinery	9/24/2011 9:00:00 AM	Closed	Near Loss	Operator had chest pains and breathing issues.		NL-Injury/Illness - RSM/MSD Discomfort	
22657	Richmond, CA - Refinery	9/26/2011 3:28:00 AM	Closed	Loss	Coude feed cut after tank switch. Hit by 1001 material and foaming in the flash drum.	After taking a tank switch @ 2001 from T-31106 to T-31107 @ 2028, the crane unit got hit with light material. The P-11025 started up an overpressure cavelling. Feed was cut to 375 MMBPD due to foaming in the flash drum.	Operational Process/Procedures	(1) Light products in feed causing foaming, (2) vortex breaker damaged
22659	Richmond, CA - Refinery	07/10/2011 8:00:00 AM	Closed	Loss	10" Wash oil pipeline detected hydrocarbon smell (Diesel) in the Steave	Detected hydrocarbon smell in the steave of the 10" wash oil pipeline during a PSM inspection. No hydrocarbon liquid was observed leaking out of the steave.	NL-Environmental - Operational Leak	
22572	Richmond, CA - Refinery	9/23/2011 10:00:00 AM	Closed	Near Loss	D & R lab	Working at a lab bench, I noticed broken glass on the bench top that had been left there.	NL-Injury/Illness - Contractor Injury	
					Description of What Occurred: The 2012 and 2013 Richmond Refinery Stock Balances involved exporting due to inaccurate data entry for the fuel oil and natural gas pricing in the LP Price model. (1) Key Factors Contributing to the Event: 1) Price mapping for fuel oil and natural gas between a spreadsheet, the price linkage tool and the LP was incorrect. 2) A new untested generator of the LP was used to develop the stock balances. This has become the normal practice because we want to use the most up to date version of the LP. However, untested tools introduce risk for error. 3) There was insufficient support for the new LP Planner relative to prior planning cycles. 4) The LROP planner was on-boarded late into the planning cycle. This was exacerbated because Richmond uses the Long Range Planner (LRP) role as a rotating development assignment. Why This Synopsi - (A flow chart is included in the linked document to assist with logic) 1) Price mapping was incorrect because a) The Richmond price transfer template is a complex spreadsheet with no assigned steward to maintain/update the template. A steward has not been defined because i) This practice has been acceptable in the past and no incident occurred. ii) Steward - as part of defining stewardship and accompanying work process, examine corporate price model updates are completed on a regular basis. 2) A new LP generate was used for the LROP as an older previously validated model. 3) The new LP generate was used because a) The model review process is not sufficiently robust given the desire to have new planners assigned to the LROP because b) Existing work process does adequately define expectations for what constitutes a model review. c) The new planner did not have the experience to detect the errors of the model. d) A not vetted by other users since it is used in the LROP process first. i) The decision to use a new LP for LROP is a business choice driven by the desire to have the most up to date tool used for LROP because it improves the business linkage with the shorter range planning process. No solution is provided for the new LP planner wasn't sufficient because a) Timely experienced help wasn't provided and/or acquired because i) The normal planner turnover, which historically bridges this need, was cut short due to factors outside of the normal work process - abnormal conditions existed and the risk was not recognized. ii) The LROP planner was on-boarded late into the planning cycle because a) This position was not successfully filled on the original attempt because i) Multiple refinery positions were posted simultaneously for selection process efficiency - consequently, not enough adequate candidates applied to cover all positions. This was a business decision - the risk of not filling the LROP planner on the first attempt was not recognized.			
22583	Richmond, CA - Refinery	7/15/2011 12:00:00 AM	Closed	Loss	Receipt of Stock Balances for 2012-2013 Synopsi		Business Process	
22586	Richmond, CA - Refinery	9/20/2011 1:00:00 PM	Closed	Near Loss	T-3126 notice of return to service was not completed and will require delay in putting tank in service.	T-3126 notice of return to service was not completed and will require delay in putting tank in service.	NL-Utility - Paperwork Incomplete/Not Sent	(1) The Tank turnaround group was not aware that this was a MACR tank and that it had a 30 day notification requirement.
22586	Richmond, CA - Refinery	9/20/2011 1:00:00 PM	Closed	Near Loss	T-3126 notice of return to service was not completed and will require delay in putting tank in service.	T-3126 notice of return to service was not completed and will require delay in putting tank in service.	NL-Regulatory Compliance - Non Compliance - Air	(1) The Tank turnaround group was not aware that this was a MACR tank and that it had a 30 day notification requirement.
22588	Richmond, CA - Refinery	9/26/2011 8:50:00 AM	Closed	Loss	Tellamar spilled to the bay from the boiler maker flange after disconnecting hose from ship.	Around 06:50 after loading 21.5MB of Tellamar to the Chemtrak Lindy Arca was completed. The Loading hose and boiler maker was installed. During the process of rigging the hose off, about 1 gal (max) spilled to the bay from the boiler maker flange.	Environmental	(1) Inadequate procedure - procedure exists and is technically right. However, it needs to be improved. (2) Inadequate procedure efficiency - the procedure is not clearly defined. The work caused a problem to be missed. (3) Inadequate procedure - vessel QA/QC is less than adequate. (4) deficiency in the quality check or inspection of work caused a problem to be missed.

22814	Richmond CA - Refinery AM	8/29/2011 6:30:00	Closed	Near vehicle swatches. Location: 91 Gale	Green Card. Near miles for morning while backing up between traffic to get your vehicle searched.	NL-Lessons Learned	
22617	Richmond CA - Refinery PM	9/1/2011 1:30:00	Closed	Near heating. Location: S Isomex - East of C-130	Green Card. Steam trap backing East of C-130	NL-Lessons Learned	
22619	Richmond CA - Refinery AM	9/27/2011 7:30:00	Closed	Near burning on bridge. Location: Xylene Sulphur St	Green Card. Bridge 145 on corner of Xylene St and Channel St some grading is missing on SW end of bridge.	NL-Lessons Learned	
22622	Richmond CA - Refinery PM	9/28/2011 2:00:00	Closed	Near Illness not work related	At approximately 2 pm today an Oversea worker complained that he was not feeling well to the Oversea safety professional. The Oversea safety professional, who is a licensed EMT, determined that there was not an emergency. Because the employee is on various medications it was also determined that the employee should be taken to the Chevron Refinery Medical Services as a precaution prior to sending the employee home. The Chevron Refinery Medical Services found nothing wrong with the employee and said it was determined to be a personal illness, the employee was released back to his duty.	NL-Injury/Illness - Contractor Injury	
22692	Richmond CA - Refinery AM	9/12/2011 7:45:00	Closed	Near Hill	Employee tied wrong on steps out of 214 Main side entrance. Their foot slipped, but they did not fall. 3 points of contact (hand in heavy position).	NL-Injury/Illness - Employee Injury	
22692	Richmond CA - Refinery AM	9/8/2011 6:45:00	Closed	Near repainted with reflectors. Location: Gale 91	Green Card. Get crosswalk repainted with reflectors before someone gets hit by a vehicle.	NL-Lessons Learned	
22694	Richmond CA - Refinery AM	9/8/2011 5:50:00	Closed	Near crosswalk to be painted. Location: Xylene St.	Green Card. We need a crosswalk to be painted. Lots of workers walk through here and across the street in the morning.	NL-Lessons Learned	
22700	Richmond CA - Refinery AM	9/13/2011 10:00:00	Closed	Near leak on E-102D. Location: FOO E-102D	Green Card. Steam tracing leak on E-102D. Location: FOO E-102D	NL-Lessons Learned	
22702	Richmond CA - Refinery PM	9/13/2011 1:30:00	Closed	Near lag didn't have anything written in precaution area. Location: DRR near DHT	Green Card. While confounding an audit, noticed scaffolding lag on #725151 didn't have anything written in "precautions" area.	NL-Lessons Learned	
22703	Richmond CA - Refinery AM	9/14/2011 9:00:00	Closed	Near Reeds replacing. Location: BAS TK-399 Pole Yards	Green Card. Wind sock needs replacing at TK-399 Pole Yard.	NL-Lessons Learned	
22705	Richmond CA - Refinery AM	9/14/2011 5:30:00	Closed	Near outside of classroom Green Card. Bench	Green Card. Bench outside of classroom coming apart. Probably would not support much weight or movement.	NL-Lessons Learned	
22710	Richmond CA - Refinery AM	9/16/2011 10:00:00	Closed	Near around the corner the boiler shop. Location: Delind the Boiler Shop	Green Card. A Van came around the corner from behind the Boiler Shop spreading while I was walking across the street.	NL-Injury/Illness - Employee Injury	
22719	Richmond CA - Refinery AM	9/15/2011 7:30:00	Closed	Near needs replacing. Location: BAS TK-397 Pole Yard	Green Card. Wind sock needs replacing.	NL-Lessons Learned	
22721	Richmond CA - Refinery AM	9/19/2011 7:00:00	Closed	Near Reeds replacing. Location: BAS TK-3107	Green Card. Wind sock needs replacing.	NL-Lessons Learned	
22729	Richmond CA - Refinery AM	9/27/2011 12:00:00	Closed	Near Bee Sting	Time: Bee sting to Left Ear.	NL-Injury/Illness - Contractor Injury	
22843	Richmond CA - Refinery PM	9/28/2011 9:10:00	Closed	Loss	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. At ~ 21:10 the P-126C OB seal failed and started leaking pretty bad. Plant Protection was called out to standby while operations related the pump. All of which was completed safely and without further incident.	Equipment/Property Damage	(1) Unable to Determine Cause of Leak
22843	Richmond CA - Refinery PM	9/28/2011 9:10:00	Closed	Loss	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. At ~ 21:10 the P-126C OB seal failed and started leaking pretty bad. Plant Protection was called out to standby while operations related the pump. All of which was completed safely and without further incident.	NL-Environmental - Operational Leak	(1) Unable to Determine Cause of Leak

23110	Richmond, CA - February	9/21/2011 3:00:00 PM	Closed	Loss	leads to a BUSS bar when they noticed a staineded feeling in their right palm, middle finger area.	check in again on 8/26/11 for follow up. On 8/26/11 he was seen again by Down at the clinic and was given ice and more ibuprofen and told to alternate usage of hands to relieve aching the same hand. Employee was returned to work with no restrictions same day.	NI-Injury/Illness - Employee Injury	(1)
23116	Richmond, CA - February	9/21/2011 3:00:00 PM	Closed	Loss	Employee was using a 718 wrench to attach heads to a BUSS bar when they noticed a staineded feeling in their right palm, middle finger area.	On September 21st 2011, Chevron oilfieldman was working at the K-242 Electrical DUGS re-attaching heads when he noticed some pain in his palm of the right hand around the middle finger area. He stated that he had had this pain before while working with tools and that it went away but by the end of the shift it was still bothering him so he came in to me and reported the pain. I asked him to report to the clinic in the morning and have it evaluated which he did. He reported to the clinic on 8/22/11 at 8:15 AM and was seen by the nurse practitioner who put ice on the affected area and gave the employee ibuprofen. He was returned to work with no restrictions that day (8/22/11) and was told to check in again on 9/26/11 for follow up. On 8/26/11 he was seen again by Down at the clinic and was given ice and more ibuprofen and told to alternate usage of hands to relieve aching the same hand. Employee was returned to work with no restrictions same day.	Injury/Illness	(1)
23167	Richmond, CA - February	10/1/2011 1:00:00 PM	Closed	Near Loss	Green Card, Truck box broke open the tailgate, Location: D&R area	Green Card, From a complete stop, leaving D&R going onto Channel Street, I believe that's the street, backside of D&R we drove up the hill and our truck box broke open the tailgate and dropped all our tools onto road.	NI-Injury/Illness - Employee Injury	(1) SDS:Siliculation Device: Plant Trip. No natural gas going to the furnace. Blocked in wrong line. Operator thought they had closed the correct valve. No lead on the Valve. Unable to see label on line. Label was faded. (2) SDS: Trailing & Procedure: Operator thought they had closed the correct valve. Did not review plant diagrams.
23194	Richmond, CA - February	10/3/2011 7:20:00 PM	Closed	Near Loss	SFRU 3 train shutdown trip	While performing the SFRU train "hot ship" procedure SRUNP3600, the natural gas to the thermal oxidizer was blocked in. Thus tripping the "fr-eye" and creating a plant trip. No effect to upstream units as it was planned to pull feed from SFRU #3 at that point.	NI-Lessons Learned	
23232	Richmond, CA - February	10/4/2011 12:00:00 AM	Closed	Loss	Contract Employee bitten by insect	Contract employee received insect bite while putting on his coveralls.	Injury/Illness	(1) environmental / outside conditions
23238	Richmond, CA - February	10/4/2011 2:45:00 PM	Closed	Near Loss	A contractor truck came into contact with a light fixture	The load on the back of a contractor truck came in contact with a light fixture on a planetary road. The driver reversed course avoiding damage to conduit and possible further problems.	NI-Equipment/Property Damage - Equipment	(1) There was a positive deviation from the RLOP flare plan (less flaring than planned) - The tool for estimating the planned flaring volumes is reasonably accurate, but possibly over-estimates the Hydrogen Sulfide (H ₂ S) content of key vessels. In particular these vessels include the LNC & HNC Atmospheric and Vacuum Distillation columns as well as the LNC & HNC reactor loops. (2) There was a positive deviation from the RLOP flare plan (less flaring than planned) - 2. A temporary steam condenser was installed at RLOP's Gas Recovery Unit to limit the flow of gas to the relief system. This worked as intended to limit the amount of flaring and to allow the RLOP plants to be put back on to the Flare Gas Recovery system.
23244	Richmond, CA - February	10/4/2011 7:32:00 PM	Closed	Loss	RLOP Flaring due to Shutdown cleanup	During the RLOP shutdown cleanup process, the Flare Gas compressor suction valve temperatures increased due to the shutdown process. It was necessary to take RLOP off FGR to avoid valve damage to the compressors.	Regulatory Compliance	(1) There was a positive deviation from the RLOP flare plan (less flaring than planned) - The tool for estimating the planned flaring volumes is reasonably accurate, but possibly over-estimates the Hydrogen Sulfide (H ₂ S) content of key vessels. In particular these vessels include the LNC & HNC Atmospheric and Vacuum Distillation columns as well as the LNC & HNC reactor loops. (2) There was a positive deviation from the RLOP flare plan (less flaring than planned) - 2. A temporary steam condenser was installed at RLOP's Gas Recovery Unit to limit the flow of gas to the relief system. This worked as intended to limit the amount of flaring and to allow the RLOP plants to be put back on to the Flare Gas Recovery system.
23244	Richmond, CA - February	10/4/2011 7:32:00 PM	Closed	Loss	RLOP Flaring due to Shutdown cleanup	During the RLOP shutdown cleanup process, the Flare Gas compressor suction valve temperatures increased due to the shutdown process. It was necessary to take RLOP off FGR to avoid valve damage to the compressors.	Environmental	
23265	Richmond, CA - February	10/5/2011 2:20:00 AM	Closed	Near Loss	#2 Separator Flow Splitter over-flowed due to heavy rain	The Flow Splitter for #2 Separator over-flowed due to heavy rain. The Flow Splitter is designed to overflow into the 100' Channel whenever the inlet flow exceeds the capacity of the pumps to remove the water. This design prevents the claims from backing up causing possible flooding inside the process units. This Flow Splitter overflows on average once every two years based on storm intensity. Last night the Refinery received .63 inches of rain in less than 90 minutes from 1:00 am to 2:30 am.	NI-Environmental - Release	

https://impacterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_18a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

23315	CA - Refinery	12/20/2009	Closed	Near Loss	Employee experiencing swelling underneath eye	Safe for evaluation. Medical staff & employees uncertain of cause - possible allergic reaction to something.	NL - Injury/Illness - Employee Injury	
23325	Richmond CA - Refinery	10/5/2011	Closed	Loss	Small Scratch to Right Shin	While TIMEC employee was cutting asphalt with a walk behind rolling water lubricating saw on the south end of Marketing Area, a piece of the steel blade's tip dislodged and bounced off the asphalt striking the employee's right shin.	NL - Injury/Illness - Contractor Injury	(1) Employee was cutting asphalt with a walk behind, self struck the employees right shin
23326	CA - Refinery	10/5/2011	Closed	Loss	Small Scratch to Right Shin	While TIMEC employee was cutting asphalt with a walk behind rolling water lubricating saw on the south end of Marketing Area, a piece of the steel blade's tip dislodged and bounced off the asphalt striking the employee's right shin.	Injury/Illness	(1) Employee was cutting asphalt with a walk behind, self struck the employees right shin
23376	Richmond CA - Refinery	8/18/2011	Closed	Near Loss	Green Card, Poor lighting and no crosswalk. Location: 9150A	Green Card, I was told by security to park in the northside parking lot at the 9150A. The lighting was poor and there isn't any designated walkways for pedestrians. Traffic flow was very tight.	NL - Lessons Learned	
23377	Richmond CA - Refinery	8/18/2011	Closed	Near Loss	Green Card, Tall weeds on the hill. Location: North of centrifuge	Green Card, Tall weeds on the hill north of centrifuges.	NL - Lessons Learned	
23378	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, Employee walked in front of car. Location: 9150A	Green Card, When I pulled into the parking lot, an employee walking wearing dark coveralls cut in front of my car.	NL - Injury/Illness - Employee Injury	
23379	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, Found office	Green Card, Found office pile in backyards.	NL - Lessons Learned	
23381	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, No crosswalk Location: Xylene Storage Newton area	Green Card, I tried to cross the street with other employee but a pickup truck couldn't see us trying to cross because we don't have a crosswalk.	NL - Injury/Illness - Employee Injury	
23382	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, One way street arrows now. People used to be able to go in and out both directions. Employees pointed out that now it's a one-way street.	Green Card, One-way street arrows now. People used to be able to go in and out both directions. Employees pointed out that now it's a one-way street.	NL - Lessons Learned	
23383	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, Bad steam trap leak. Location: S Isomix 10 West of P-13A	Green Card, Bad steam trap leak at 10 West of P-13A	NL - Lessons Learned	
23384	Richmond CA - Refinery	8/21/2011	Closed	Near Loss	Green Card, Burner tip in wrong position. Location: D&R - F-570	Green Card, Discovered one burner tip in wrong position.	NL - Lessons Learned	
23385	Richmond CA - Refinery	8/21/2011	Closed	Near Loss	Green Card, Worker using grinder with no guard on T grincer.	Green Card, Worker observed using grinder with no guard on T grincer.	NL - Injury/Illness - Employee Injury	
23386	Richmond CA - Refinery	8/22/2011	Closed	Near Loss	Green Card, Bad steam leak. Location: SDA S Isomix by C-130	Green Card, Bad steam tracking leak by C-130	NL - Lessons Learned	
23381	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, Poor lighting. Location: Xylene Sily Storage	Green Card, We need more light on Xylene Sily by Storage so drivers can see workers who need to cross the street. It's hard to see workers with their dark clothes or coveralls.	NL - Lessons Learned	
23382	Richmond CA - Refinery	8/20/2011	Closed	Near Loss	Green Card, Handrail broken Pump Station	Green Card, Handrail broken	NL - Lessons Learned	
23393	Richmond CA - Refinery	8/27/2011	Closed	Near Loss	Green Card, Sluds on fresh air break too close to ground. Location: JH1 K242	Green Card, Fresh air break sluds are 3' from the ground, too close to ground.	NL - Lessons Learned	
23395	Richmond CA - Refinery	8/29/2011	Closed	Near Loss	Green Card, Pickup truck didn't have his tailgate up. Location: Channel St.	Green Card, A pickup truck driving down Channel St. with a big load didn't have his tailgate up.	NL - Injury/Illness - Employee Injury	
23397	Richmond CA - Refinery	8/29/2011	Closed	Near Loss	Green Card, Steam line 1/2" pipe leaking. Location: D&R Station on K-1171	Green Card, As I was walking up to the top deck I saw a steam line 1/2" pipe was leaking near walkway.	NL - Lessons Learned	
23403	Richmond CA - Refinery	10/5/2011	Closed	Loss	Employee was stung by a bee while on break.	Employee was sitting in the Crew Truck with his hand out the window during break time when a bee stung him.	Injury/Illness	(1) It was a bee

(1) Incident Number 23413 Business Unit Cracking Location Play Facility Name Richmond Incident Date 8/23/2011 Type of Process Sulfuric Acid Recovery Type of Equipment Vessel Components Glass Lead West Lemna Panel Pressed Reinforced Concrete Unit Incident Description Operations received the 2nd (bottom) unit of the Sulfuric acid pump (SAS) vessel. It was closed and the vent went to zero. The operator field verified and found acid in the acid

23483	Richmond, CA - Refinery	10/8/2011 10:45:00 AM	Closed	Loss	Hydrocarbon spill (Approx. 100 BBL(S)) to secondary containment at #7 Pump Station	<p>finished discharging HYFCC to T-1899. The CPS Operator noticed that there was a 2-3' layer of hydrocarbon throughout the entire area of the secondary containment of the Pump Station. The CPS Operator later called the during this morning at approximately 0800hrs the could state hydrocarbon was empty. Both the Crude Head Operator and Shift Team Leader were notified and Chevron Fire was called out. All transfers through the pump station were shutdown including a diesel discharge to T-3215 on the 2 DG and a diesel stops discharge on the 16" Ballast to T-1504 from the Mississipp Voyageur. Chevron Fire conducted area monitoring and there was no detectable LEL and Benzene readings were at .10 ppm PPE required. Notifications were made to the RSL, B&S Section Head and ABU manager. We are currently pumping out the secondary containment to T-1504 using the sump pumps and are also using two vacuum trucks to assist in draining the sump. When the check of the piping in the pump station for leaks. We have an Operator standing by the pump station monitoring the area. When Safety Operators are checking lines on the side of the pump station. We estimate this spill to be approximately 100 barrels.</p>	Environment	(1) Work Package/ Permit N1, (2) Hazard Analysis N1, (3) Inspection not required, (4) Additional Consideration, (5) Work Package/ Permit N1, (6) Hazard Analysis N1, (7) Hazard Analysis N1, (8) Inspection not required, (9) Inspection not required
23486	Richmond, CA - Refinery	10/8/2011 9:30:00 AM	Closed	Loss	Line of Fire Employee hit himself in the wrist while pulling on insulation	<p>The Crude Pump Station (CPS) Operator was at #7 Pump station to turn on P-6 for a displacement on the 18" crude after the Mississippi Voyageur had finished discharging HYFCC to T-1899. The CPS Operator noticed that there was a 2-3' layer of hydrocarbon throughout the entire area of the secondary containment of the Pump Station. The CPS Operator later called the during this morning at approximately 0800hrs the could state hydrocarbon was empty. Both the Crude Head Operator and Shift Team Leader were notified and Chevron Fire was called out. All transfers through the pump station were shutdown including a diesel discharge to T-3215 on the 2 DG and a diesel stops discharge on the 16" Ballast to T-1504 from the Mississippi Voyageur. Chevron Fire conducted area monitoring and there was no detectable LEL and Benzene readings were at .10 ppm PPE required. Notifications were made to the RSL, B&S Section Head and ABU manager. We are currently pumping out the secondary containment to T-1504 using the sump pumps and are also using two vacuum trucks to assist in draining the sump. When the check of the piping in the pump station for leaks. We have an Operator standing by the pump station monitoring the area. When Safety Operators are checking lines on the side of the pump station. We estimate this spill to be approximately 100 barrels.</p>	Loss of Containment	(1) Work Package/ Permit N1, (2) Hazard Analysis N1, (3) Inspection not required, (4) Additional Consideration, (5) Work Package/ Permit N1, (6) Hazard Analysis N1, (7) Hazard Analysis N1, (8) Inspection not required, (9) Inspection not required
23486	Richmond, CA - Refinery	10/8/2011 9:30:00 AM	Closed	Loss	Line of Fire Employee hit himself in the wrist while pulling on insulation	<p>Employee was using a pair of pliers to remove a screw from pipe insulation. Located on the relief deck for vessel 1410. At approx 9:30 am, the pliers slipped from the hand of the screw and struck him in the upper lip.</p>	Injury/Illness	(1) Use of proper tool. The worker should have used a nut driver and not a pair of pliers to loosen and remove the screw.
23486	Richmond, CA - Refinery	10/8/2011 9:30:00 AM	Closed	Loss	Line of Fire Employee hit himself in the wrist while pulling on insulation	<p>Employee was using a pair of pliers to remove a screw from pipe insulation. Located on the relief deck for vessel 1410. At approx 9:30 am, the pliers slipped from the hand of the screw and struck him in the upper lip.</p>	Injury/Illness	(1) Use of proper tool. The worker should have used a nut driver and not a pair of pliers to loosen and remove the screw.
23487	Richmond, CA - Refinery	10/8/2011 11:30:00 AM	Closed	Near Loss	H2S Monitor Activations (4)	<p>During the process of preparing K-1400 for removal, residual liquid in the pipe spoils being removed dripped out and activated the workers H2S monitors.</p>	ML-Injury/Illness - Contractor Injury	
23489	Richmond, CA - Refinery	10/8/2011 8:00:00 AM	Closed	Loss	Possible Bug Bite w/ Swollen Hand	<p>EE reported possible insect bite to his right hand may have occurred approx 0600 - 0630 while he was working out for the day. Noticed itching and a possible small white bump, but no insect was seen. At approx 1030, employee noticed mild swelling of his right hand, although no obvious bite mark was present. EE was evaluated by Chevron Fire EMTs. Further evaluation at Chevron Medical Clinic revealed a small insect bite wound / point-of-entry. EE received first aid treatment and was returned to work.</p>	Injury/Illness	(1) Insect bites
23489	Richmond, CA - Refinery	10/8/2011 8:00:00 AM	Closed	Loss	Possible Bug Bite w/ Swollen Hand	<p>EE reported possible insect bite to his right hand may have occurred approx 0600 - 0630 while he was working out for the day. Noticed itching and a possible small white bump, but no insect was seen. At approx 1030, employee noticed mild swelling of his right hand, although no obvious bite mark was present. EE was evaluated by Chevron Fire EMTs. Further evaluation at Chevron Medical Clinic revealed a small insect bite wound / point-of-entry. EE received first aid treatment and was returned to work.</p>	ML-Injury/Illness - Contractor Injury	(1) Insect bites
23489	Richmond, CA - Refinery	10/8/2011 8:00:00 AM	Closed	Loss	Contract EE reported arm pain.	<p>Biggs: Contract EE reported arm pain seen by Chevron Fire and transported to Chevron clinic for follow up. EE had been working on moving cranes mats.</p>	Injury/Illness	(1) Attempting to lift load by hand
23487	Richmond, CA - Refinery	10/8/2011 12:00:00 AM	Closed	Near Loss	Contract EE reported being dizzy.	<p>Contract EE reported being dizzy. Seen by Chevron Fire and transported to clinic for follow up.</p>	ML-Injury/Illness - Contractor Injury	

23518	CA - Refinery	12:00:00 AM	Closed	Near Loss	Contract EE's H2S Monitors Activated.	NL-Injury/Illness - Contractor Injury	
23519	Richmond, CA - Refinery	10/7/2011 12:30:00 AM	Closed	Near Loss	Missing LOTO Box Key	NL-Business Process - Business Interruption	
23520	Richmond, CA - Refinery	10/7/2011 12:00:00 AM	Closed	Near Loss	Contract EE's H2S Monitors Activated.	NL-Injury/Illness - Contractor Injury	
23550	Richmond, CA - Refinery	10/6/2011 3:00:00 PM	Closed	Loss	A staffing contractor sustained a first aid injury while disassembling a blower at TKC Off Gas Compressor K-714A at North Isomax. The worker was hit on the head by a bolt that fell from the blower. The worker was hit on the head and grazed on the face by a valve handle/chain that unexpectedly disconnected from the valve stem.	(1) SCS: Design & Engineering Maintenance & Inspection - Nitrogen Devices Vibration from valve operation over time, (2) SCS: Design & Engineering - Disruption from practice to ensure hand wheel/chain assemblies are tethered or otherwise supported was not identified (or followed).	
23659	Richmond, CA - Refinery	10/6/2011 3:00:00 PM	Closed	Near Loss	Potential fire hazard associated with material loaded onto a vacuum truck.	NL-Fire/Explosion	(1) The GRU Shutdown procedure (GRU-NP-3003) did not reference the V-1836 degassing procedure (GRU-XC-4310), (2) The V-1836 degassing procedure (GRU-XC-4310) does not include a step for operators to check the LEL of the material in V-1836, (3) It has not been standard practice to obtain H2S and LEL readings for all vacuum truck loads during shutdowns.
23668	Richmond, CA - Refinery	9/21/2011 12:00:00 AM	Closed	Near Loss	Lab Bias for FCC Inferentials feed to zss0	NL-Business Process - Business Process	(1) FCC - poor timing in online IO application system procedures (do not perform this function very often) Action -
23572	Richmond, CA - Refinery	10/5/2011 9:00:00 AM	Closed	Near Loss	Cracking DMC Server running CPU load to 100%.	NL-Quality - Product Quality (Int)	(1) PCE did not have Collect Procedure on hand to review abnormal program termination handling, (2) PCE did not have Collect Procedure on hand to review abnormal program termination handling.

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23572	Richmond, CA - Refinery	10/5/2011 8:00:00 AM	Closed	Near multiple failed server units causing CPU load to 100%	noticed. Next the engineer logged on the DMC Server from the workstation to view the CPU load and identify any issues. Upon inspection of the DMC Server, it was found that four unknown collect files were running. The collect files were immediately terminated because on the previous day the collect files were intentionally started. The DMC Server CPU load dropped to 17%, and the Webserver speed returned to normal. Investigating the unknown collect files revealed that one reported sticking during collect file validation had been intentionally caused four collect files to be started at the same time. The keyboard was immediately replaced.	NI-Business Process - Business Process	(1) PCE did not have Collect Procedure on hand to review abnormal program termination handling. (2) PCE did not have Collect Procedure on hand to review abnormal program termination handling.
23580	Richmond, CA - Refinery	10/4/2011 1:00:00 PM	Closed	Loss Bump to right elbow	After turning 2" purge valve on berth #4 vapor recovery operator turned away and struck elbow on nearby piping.	Injury/Illness	(1) Operator did not take time to look around for operational clearance
23588	Richmond, CA - Refinery	8/23/2010 12:00:00 AM	Closed	Near DATE SUBMITTED IN RECOMMENDATION	EC-102E was reported to the ABU to be due for a permit inspection 11/4/11. The actual due date 5/13/11	NI-Business Process - Business Process	(1) - Inspector did not use last inspection data when updating Inspection Manager (actual inspector not available for interview).
23624	Richmond, CA - Refinery	10/19/2011 3:00:00 PM	Closed	Loss Natural gas routed to T-397	INITIAL DESCRIPTION: At 3:00 PM the operator was making rounds when he spotted the pressure valves on the tank roof burping liquid on the roof. TAPROOT DESCRIPTION: Natural gas was inadvertently routed to T-397 on October 8, 2011 at 18h37 when flow reversed from the headspace of V-153A/B at the SDA. This resulted in a hazardous condition as natural gas vented via the two breather valves and pressure relief door on the roof of T-397. Attempts to mitigate the risks included cordoning off the tank and introducing a nitrogen purge to the head space. Efforts to locate the source of the natural gas was complicated by startup activity on the TKC and shutdown activity on RLOP and the SDA. The source of the natural gas was identified and isolated on October 13, 08h04. The consequences of this incident was a Title V deviation for exceeding the vapor pressure limit of 0.5 psia for a tank in unregulated service BAAQMD Reg 6.5-17 and Permit Condition 20764. The refinery also received two order complaints from the community. It was determined that the event met the requirements of a Tier 1 Loss of Containment (LOC) incident.	Loss of Containment	(1) Practice / repetition NI, (2) No procedure, (3) Practice / repetition NI, (4) Equipment Environment not considered, (5) Additional consideration, (6) Knowledge NI
23624	Richmond, CA - Refinery	10/19/2011 3:00:00 PM	Closed	Loss Natural gas routed to T-397	INITIAL DESCRIPTION: At 3:00 PM the operator was making rounds when he spotted the pressure valves on the tank roof burping liquid on the roof. TAPROOT DESCRIPTION: Natural gas was inadvertently routed to T-397 on October 8, 2011 at 18h37 when flow reversed from the headspace of V-153A/B at the SDA. This resulted in a hazardous condition as natural gas vented via the two breather valves and pressure relief door on the roof of T-397. Attempts to mitigate the risks included cordoning off the tank and introducing a nitrogen purge to the head space. Efforts to locate the source of the natural gas was complicated by startup activity on the TKC and shutdown activity on RLOP and the SDA. The source of the natural gas was identified and isolated on October 13, 08h04. The consequences of this incident was a Title V deviation for exceeding the vapor pressure limit of 0.5 psia for a tank in unregulated service BAAQMD Reg 6.5-17 and Permit Condition 20764. The refinery also received two order complaints from the community. It was determined that the event met the requirements of a Tier 1 Loss of Containment (LOC) incident.	Regulatory Compliance	(1) Practice / repetition NI, (2) No procedure, (3) Practice / repetition NI, (4) Equipment Environment not considered, (5) Additional consideration, (6) Knowledge NI
23624	Richmond, CA - Refinery	10/19/2011 3:00:00 PM	Closed	Loss Natural gas routed to T-397	INITIAL DESCRIPTION: At 3:00 PM the operator was making rounds when he spotted the pressure valves on the tank roof burping liquid on the roof. TAPROOT DESCRIPTION: Natural gas was inadvertently routed to T-397 on October 8, 2011 at 18h37 when flow reversed from the headspace of V-153A/B at the SDA. This resulted in a hazardous condition as natural gas vented via the two breather valves and pressure relief door on the roof of T-397. Attempts to mitigate the risks included cordoning off the tank and introducing a nitrogen purge to the head space. Efforts to locate the source of the natural gas was complicated by startup activity on the TKC and shutdown activity on RLOP and the SDA. The source of the natural gas was identified and isolated on October 13, 08h04. The consequences of this incident was a Title V deviation for exceeding the vapor pressure limit of 0.5 psia for a tank in unregulated service BAAQMD Reg 6.5-17 and Permit Condition 20764. The refinery also received two order complaints from the community. It was determined that the event met the requirements of a Tier 1 Loss of Containment (LOC) incident.	Environmental	(1) Practice / repetition NI, (2) No procedure, (3) Practice / repetition NI, (4) Equipment Environment not considered, (5) Additional consideration, (6) Knowledge NI
23668	Richmond, CA - Refinery	10/11/2011 2:45:00 PM	Closed	Loss Chevron vehicle hit by contractor truck.	A Chevron car was parked front and back in a parking space at the Swan Asphaltes parking lot. A Swan pick-up truck with a protruding tow hitch was backing into the space right next to the driver's side of the Chevron vehicle. While backing in, the tow hitch caught the left corner of the rear bumper on the car, and tore a 10 inch long gash in the bumper.	Transportation	(1) other driver

[illegible]

23813	Richmond CA - Refinery	10/13/2011 5:16:00 AM	Closed	Loss	V-1020 venting to relief system causing trip of initiator and short visible flare	careful consideration would need to be given as to what appropriate bias set point should be used. When a control loop was placed in auto (cascaded) the appropriate set point to the vent valve opening to the flare controller which resulted in the vent valve opening to the flare.	NL-Environmental - Release	(1) Operator error. Operator entered the wrong setpoint into the bias controller which resulted in vent valve opening to flare.
23837	Richmond CA - Refinery	10/13/2011 10:00:00 PM	Closed	Near Loss	Employee H2S monitor went off while operating bleed to check for cleanliness	While opening bleeder for E-1185B to check for cleanliness employee H2S monitor went off. Employee aware of potential H2S.	NL-Injury/Illness - Employee Injury	
23846	Richmond CA - Refinery	10/13/2011 8:50:00 PM	Closed	Near Loss	2 contract EE H2S Badge alarmed, 1@12pm and 1@15pm.	2 Contract EE H2S Badge alarms sounded when Shutdown-Turnaround E-1185B clean-up piping low point blow down was opened.	NL-Injury/Illness - Contractor Injury	
23846	Richmond CA - Refinery	10/13/2011 8:50:00 PM	Closed	Near Loss	2 contract EE H2S Badge alarmed, 1@12pm and 1@15pm.	2 Contract EE H2S Badge alarms sounded when Shutdown-Turnaround E-1185B clean-up piping low point blow down was opened.	NL-Environmental - Release	
23850	Richmond CA - Refinery	10/14/2011 2:00:00 AM	Closed	Near Loss	Contract EE H2S monitor alarm went off	While fresh air job at 4C crude boundary deck is in progress, the JHT plant H2S evacuation alarm sounded off. Also contract EE personal H2S sounded off and feeds at 11pm.	NL-Environmental - Release	
23852	Richmond CA - Refinery	10/13/2011 12:05:00 AM	Closed	Near Loss	Bundt contacted the ground at this wash pad	Matric. Tube battle contacted the ground.	NL-Environmental - Release	
23853	Richmond CA - Refinery	10/13/2011 9:00:00 AM	Closed	Loss	Contract EE cut finger.	Blidge. While gelling gear at the Ranch contract EE received minor cut to thumb	Injury/Illness	(1) No gloves
23856	Richmond CA - Refinery	10/14/2011 12:00:00 AM	Closed	Near Loss	Flange wedge fell to ground	Pipergs. Flange wedge fell from unknown location. (Upper deck) sticking top of exchanger. No injuries.	NL-Injury/Illness - Employee Injury	
23857	Richmond CA - Refinery	10/14/2011 10:20:00 AM	Closed	Loss	V-475 PSV filled to relief	After. Loss of A train, with NISO plants cutting feed, 4H2S began to lose feed and became unstable. Ops decided to transfer feed from 20 plant to 4H2S in order to stabilize the plant. The transfer was done too quickly and caused a feed spike in 4H2S which in turn caused a spike in Sweet gas to V-475 ny fuelgas drum and overpressured it to relief.	Operational Process/Procedures	(1) Operatics too quickly switched feed from 20 plant to 10 plant
23859	Richmond CA - Refinery	10/14/2011 3:00:00 PM	Closed	Loss	Employee received a particle in the eye	Operator was helping with A train startup. Operator was taking a break and was taking off his hardhat when he felt something go in his eye. Operator reported this to the HO and HO called PP as Taken to clinic and Eye flushed. Returned to work.	Injury/Illness	(1) Dust on hardhat landed in EE eye
23901	Richmond CA - Refinery	10/15/2011 12:50:00 AM	Closed	Near Loss	Contract EE H2S Badge alarmed while working 4 Crude Boundary deck.	Contract EE H2S Badge alarmed at 4:25pm when working 4 Crude boundary deck turning 1"m steam hammer blind that connected to Naphta Line.	NL-Environmental - Release	
23902	Richmond CA - Refinery	10/15/2011 1:25:00 AM	Closed	Near Loss	2 contract EEs and 1 CVX EE H2S Badge alarmed	2 contract EEs and 1 CVX EE H2S badge alarmed when going about work duties. 2 contract EEs were taking Temp. clean-up hose out of unit and CVX EE making rounds to fuel equipment. Reading on contract EE's badge's were 15ppm and 6ppm. CVX EE badge reading was 15ppm. Suspect is Gub Line.	NL-Environmental - Release	
23904	Richmond CA - Refinery	10/15/2011 5:14:00 AM	Closed	Near Loss	Contract EE H2S Badge alarmed at 7pm while doing SCBA Bottle Watch	Contract EE H2S badge alarmed at 7pm while doing SCBA Bottle Watch attendant duty at the 4 Crude boundary deck.	NL-Environmental - Release	

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23912	Richmond, CA - Refinery	10/16/2011 12:30:00	Closed	Loss	Insect bite	EE was working on a pipe and felt a bite on the back of his neck.	NI-Injury/Illness	(1) bug bite
23912	Richmond, CA - Refinery	10/15/2011 12:30:00	Closed	Loss	Insect bite	EE was working on a pipe and felt a bite on the back of his neck.	NI-Injury/Illness - Contractor Injury	(1) bug bite
23919	Richmond, CA - Refinery	10/15/2011 3:00:00	Closed	Loss	Laceration to Palm of Hand	Master: EE was cutting a runway on C-1500, which is a light fit and was making difficulty exiting due to a box section of the tray being up to the runway. He reached back to push himself through the runway placing his hand on the box section of the tray. The box had a sharp edge causing a laceration to the palm of his hand. EE stated that he was wearing gloves but the edge cut through the glove.	NI-Injury/Illness	(1) Body position
23919	Richmond, CA - Refinery	10/15/2011 3:00:00	Closed	Loss	Potential radiation Rag 85-142, Sarcosup filling of T-3104 before the tool flooded	Holes where noted in the fire foam system while T-3104 was being 1st filled after the major turnaround.	NI-Environmental - Release	(1) No communication was done to the Shift Team leader with regards to Air Change requirement to continuously fill the tank until the tool is flooded
23919	Richmond, CA - Refinery	10/15/2011 10:05:00	Closed	Loss	EE contractor scraped his knuckle with minor abrasion	While contractor EE was attaching lag lines to copu blower at the base of C-240, EE scraped left hand knuckle. EE stated that injury scraped through gloves.	NI-Injury/Illness	(1) Dower had some sharp edges. LP5A would've showed that. (2) Not aware of hand placement
23921	Richmond, CA - Refinery	10/15/2011 8:30:00	Closed	Loss	Worker received a foreign body in left eye while grinding on a steel column. The worker was wearing PPE.	Foreign body in workers left eye. The object was easily removed with a flush, no embedment occurred.	NI-Injury/Illness - Contractor Injury	(1) The worker should have trained the sparks away from himself. (2) There was no training beyond skilled craft training for this specific task.
23921	Richmond, CA - Refinery	10/15/2011 8:30:00	Closed	Loss	Worker received a foreign body in left eye while grinding on a steel column. The worker was wearing PPE.	Foreign body in workers left eye. The object was easily removed with a flush, no embedment occurred.	NI-Injury/Illness	(1) The worker should have trained the sparks away from himself. (2) There was no training beyond skilled craft training for this specific task.
23922	Richmond, CA - Refinery	10/18/2011 12:18:00	Closed	Loss	After NYC, Ford F-450 Pallet Truck vs. 10 Passenger Van	Contract EE backed Ford F-450 Pallet Truck into parked unoccupied 10 passenger van near the D&H S&D Turnaround Lurch. Tent after getting and exiting Lurch punctured from Lurch truck. Minor damage. Left side parking light broken and front fender barely bent.	NI-Transportation - Contractor	(1) SOS: Training & Procedures: Lessons Learned Bruised Foot, 3blots. 3blot Shackle Pallet (Foil) Crid Rigger's Foot. Shackle shipped from riggers hand.
23923	Richmond, CA - Refinery	10/16/2011 11:45:00	Closed	Loss	TOP INVESTIGATION: Contract EE stuck on tool by Shackle	Bigge: Contract EE was struck on foot by approximately 150 lbs. Shackle while rigging for the 600 ton crane.	NI-Injury/Illness	(1) SOS: Training & Procedures: Lessons Learned Bruised Foot, 3blots. 3blot Shackle Pallet (Foil) Crid Rigger's Foot. Shackle shipped from riggers hand.
23923	Richmond, CA - Refinery	10/16/2011 2:00:00	Closed	Loss	Operator hurt foot while descending down from a ladder.	Operator was working on the E-1023. After completing the work, the operator was descending down from the ladder and felt a pain in their foot. The operator felt they must have hurt it on the last rung of the ladder. The operators boot seemed to be very weak in the middle of the boot. They worked with the pain until later that shift. Then they informed the STL of the potential injury. Immediately plant protection was called for a medical evaluation.	NI-Injury/Illness - Employee Injury	(1) Cannot be ascertained if the odor originated in T3104. All steps as outlined in the first fill procedure were followed. Verification conducted by Operator around T3104 while odor complaint in Ocean Avenue.
23928	Richmond, CA - Refinery	10/16/2011 8:00:00	Closed	Loss	T-3104 Odor Complaint (confirmed)	An odor complaint was confirmed to be emanating from T-3104 during the tank first fill process. The tank was being filled with available mixed Area Service from T-3105.	Regulatory Compliance	(1) Cannot be ascertained if the odor originated in T3104. All steps as outlined in the first fill procedure were followed. Verification conducted by Operator around T3104 while odor complaint in Ocean Avenue.
23928	Richmond, CA - Refinery	10/16/2011 8:00:00	Closed	Loss	Violation of RI-341 Appendix VIII, CII-Lite Togo procedure	The incident this morning involved a Chevron Fuel tank running over a radiographer's crank. The Crank is a mechanical device that allows the lithium source to be sent down a guide tube to a component that requires an x-ray (i.e. pipe weld, corrosion on a pipe elc). The mechanism was damaged as a result of the vehicle driving over it. Fortunately the fast thinking radiographer was able to retract the source with the damaged crank. This prevented a	NI-Injury/Illness - Contractor Injury	(1) Cut Line Tape Procedures were not followed

23932	Richmond CA - Refinery	10/16/2011 6:00:00 AM	Closed	Loss	Fuel truck ran over contractor's guide tube crank. Fuel truck appears to have been moving forward and ran over crank boundary tape for pipe weld x-ray inspection.	Source retrieval and any disruption to work in that area. The following items were observations made by contractor who owned guide tube crane: 1. The fuel truck was not backing up. It was driving forward. 2. The cranes were 5 to 8 inches outside the barrier tape. 3. The fuel truck was brushing alongside the boundary tape trying to get to its destination (Crane). 4. The guide tube assembly was not broken open. Just the winding handle was broken off. 5. The technician was still able to wind in the source by normal operation without the handle, not by use of a pliers. 6. Location bottom of C-1510, Plant # 15.	Equipment/Property Damage	(1) OWNER OF THE MECHANICAL DEVICE LAID IT OUTSIDE OF THE RADIATION BARRIER TAPE ON THE ROADWAY UNATTENDED IN LOW LIGHT CONDITIONS NOT ALLOWING THE TRUCK OPERATOR NOR HIS ASSISTANT TO SEE IT.
23932	Richmond CA - Refinery	10/16/2011 6:00:00 AM	Closed	Loss	Fuel truck ran over contractor's guide tube crank. Fuel truck appears to have been moving forward and ran over crank boundary tape for pipe weld x-ray inspection.	The incident this morning involved a Chevron Fuel truck running over a radiographer's crank. The Crank is a mechanical device that allows the Hydium Source to be sent down a guide tube to a component that requires an x-ray (i.e. pipe weld, corrosion on a pipe etc). The mechanism was damaged as a result of the vehicle driving over it. Fortunately the fast thinking radiographer was able to retract the source with the damaged crank. This prevented a source retrieval and any disruption to work in that area. The following items were observations made by contractor who owned guide tube crane: 1. The fuel truck was not backing up. It was driving forward. 2. The cranes were 5 to 8 inches outside the barrier tape. 3. The fuel truck was brushing alongside the boundary tape trying to get to its destination (Crane). 4. The guide tube assembly was not broken open. Just the winding handle was broken off. 5. The technician was still able to wind in the source by normal operation without the handle, not by use of a pliers. 6. Location bottom of C-1510, Plant # 15.	Transportation	(1) OWNER OF THE MECHANICAL DEVICE LAID IT OUTSIDE OF THE RADIATION BARRIER TAPE ON THE ROADWAY UNATTENDED IN LOW LIGHT CONDITIONS NOT ALLOWING THE TRUCK OPERATOR NOR HIS ASSISTANT TO SEE IT.
23934	Richmond CA - Refinery	10/16/2011 1:00:00 PM	Closed	Loss	Damaged bundles	Damage to tubes on two separate bundles (E-212A / E-213C) at washpad caused by improper placement of bundles on rollers. Also rolling of bundles while tubes are resting on rollers instead of resting on baffles.	Equipment/Property Damage	(1) Massed placement of bundle on to rollers. Due to the way the baffles are shaped.
23944	Richmond CA - Refinery	10/16/2011 10:30:00 AM	Closed	Loss	Worker stung by bee	Bee stinging causing swelling	Injury/Illness	(1) Lack of training or procedure for working in environment where workers can be exposed to bee stings.
23951	Richmond CA - Refinery	10/17/2011 2:00:00 AM	Closed	Loss	Strains from slip, trip and fall.	Worker strained right ankle and left wrist when she slipped on a step coming down from a two step equipment platform. The worker rolled her ankle on a fire hose and fell backward straining her wrist while trying to break her fall. Plant protection was notified, responded and referred worker to the Chevron Medical facility where the worker was examined and released back to full duty.	Injury/Illness	(1) Work environment presented hazards i.e. dark, slippery surfaces, no hand rails on steps.
23951	Richmond CA - Refinery	10/17/2011 2:00:00 AM	Closed	Loss	Strains from slip, trip and fall.	Worker strained right ankle and left wrist when she slipped on a step coming down from a two step equipment platform. The worker rolled her ankle on a fire hose and fell backward straining her wrist while trying to break her fall. Plant protection was notified, responded and referred worker to the Chevron Medical facility where the worker was examined and released back to full duty.	Contractor Injury	(1) Work environment presented hazards i.e. dark, slippery surfaces, no hand rails on steps.
23951	Richmond CA - Refinery	10/17/2011 2:00:00 AM	Closed	Loss	Strains from slip, trip and fall.	Worker strained right ankle and left wrist when she slipped on a step coming down from a two step equipment platform. The worker rolled her ankle on a fire hose and fell backward straining her wrist while trying to break her fall. Plant protection was notified, responded and referred worker to the Chevron Medical facility where the worker was examined and released back to full duty.	Contractor Injury	(1) Work environment presented hazards i.e. dark, slippery surfaces, no hand rails on steps.
23971	Richmond CA - Refinery	10/13/2011 7:00:00 PM	Closed	Loss	Console operator unclear of the meaning of an Henrywell alarm	UPS alarm (91XA6003) came on in the DCS. Operations unclear as to what the alarm meant. Head Operator notified the STL on crew and gave turnover to the following Head Operator.	NL-Business Process - Business Interruption	
23995	Richmond CA - Refinery	10/15/2011 11:00:00 AM	Closed	Near Loss	Green Card, Tank vapor caused an odor. Location: Pl. Richmond	Green Card While filling T3104, vapor from the tank caused an odor in the Pl. Richmond community that impacted several of the residents and caused many complaints. The wind direction in the two-day period was from the refinery directly into Pl. Richmond. This will likely result in a BAAQMD violation and will be a scorecard event. Most important it was a negative impact to our neighboring community and did not help the Chevron image.	NL-Lessons Learned	
23997	Richmond CA - Refinery	10/17/2011 3:30:00 PM	Closed	Near Loss	Small flange leak at MOV 868 (21 change to T-310C)	CXV Maint. noticed a small drip on the 21 change at MOV 868.	NL-Environmental - Operational Leak	(1) Operators did not know that the 21 Change line should always be vented to a tank.
23999	Richmond CA - Refinery	10/17/2011 2:15:00 PM	Closed	Loss	Jet Spill to Containment	Jet spill from missing bleeder valve located on the twin seal valve on the 51 Line	Environmental	(1)
24007	Richmond CA - Refinery	10/17/2011 2:45:00 PM	Closed	Loss	12" diameter size steam burn below right wrist on operator.	Operator was using the wash down hose with steam injection to move oil at 1A Separator near P-104. While moving the wash down hose in a side to side motion, the metal fitting on the nozzle came into contact with his right wrist causing a small burn less than 1/2" inch in diameter. Operator was wearing leather gloves and his safety were in the full extended position.	Injury/Illness	(1) Not aware of the consequences of their actions.
24007	Richmond CA - Refinery	10/17/2011 2:45:00 PM	Closed	Loss	12" diameter size steam burn below right wrist on operator.	Operator was using the wash down hose with steam injection to move oil at 1A Separator near P-104. While moving the wash down hose in a side to side motion, the metal fitting on the nozzle came into contact with his right wrist causing a small burn less than 1/2" inch in diameter. Operator was wearing leather gloves and his safety were in the full extended position.	NL-Injury/Illness - Employee Injury	(1) Not aware of the consequences of their actions.
24015	Richmond CA - Refinery	10/17/2011 8:00:00 PM	Closed	Loss	Contract EE Particle In Eye.	Contract EE in 4 Circle gravel lot doing JH4 fall something in eye. EE walked across Plant to eye wash station. Eye wash alarmed to OPS. Control House, OPS, found EE flushing eye at eye wash. Chevron Fire Dept. called to administer aid EE taken to Refinery Clinic by Chevron Fire Dept. for further evaluation.	NL-Injury/Illness - Contractor Injury	(1) dusty area due to wind

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24015	Richmond, CA - Refinery	10/17/2011 PM	Closed	Loss	Contract EE Particle In Eye	Contract EE in a Crude gravel lot doing AHA, felt something in eye. EE walked across Plant to eye wash station. Eye wash alerted to OPS, Control House, OPS, found EE flushing eye at eye wash. Chevron Fire Dept. called to administer aid. EE taken to Refinery Clinic by Chevron Fire Dept. for further evaluation.	Injury/Illness	(1) dusty area due to wind
24023	Richmond, CA - Refinery	10/17/2011 2:00:00 PM	Closed	Loss	NOx excursions on T-2000 & T-2000A Co-gen	At 03:40 hrs. on the morning of 10/17, nightshift noticed an increase in T-2000 vaporizer temp indicating H2O in the NH3. Moves were made on the NH3 system to deal with the wet NH3. Moves continued on dayshift with the NOx still within range. At 17:00 hrs., the temp in the vaporizer climbed dramatically. The amount of H2O in the NH3 significantly increased and was so high that it couldn't be handled and was carried over through the vaporizer and into the burner system. T-2000 went into violation at 21:00 hrs. T-1000 started reading the same way approx. 2 hours later. The lime traps is due to it being downstream a bit. T-1000 reached in the same manner due to the wet NH3 and went into violation at 23:00 hrs. SISO has incident #24028. The UDES will do more investigation and create corrective actions upon completion of their findings.	NL-Environmental - Radiation	(1) Double check valve stuck open on NH3 to V-894, allowing CPC to backflow with both 8 and 18 Plants shut down. (2) Double check valve stuck open on NH3 to V-894, allowing CPC to backflow with both 8 and 18 Plants shut down. (3) Management did not recognize that overall ammonia quality in the refinery was an issue. There was no adequate oversight to address recurring issues.
24054	Richmond, CA - Refinery	10/15/2011 9:29:00 PM	Closed	Near	USB Keypad failed on FCC GUS12	Operators were unable to change setpoints due to a failure of a USB keypad on one of the GUS station at the FCC GIS console. This failure did impact unit operation because only one GUS station was impacted.	NL-Business Process - Business Interruption	
24056	Richmond, CA - Refinery	10/17/2011 16:00:00 AM	Closed	Loss	NH3 contaminated with H2O, causing NOX violation.	Check valves hung open on the NH3 system going into V-894, causing the cold pump condensate to leak into the NH3 system, ending up in the NH3 bulbs. This caused the NOX to spike in both A train and the Co-gen plants. This caused a Tilt violation at the Co-gen trains.	Regulatory Compliance	(1) Double check valve stuck open on NH3 to V-894, allowing CPC to backflow with both 8 and 18 Plants shut down
24070	Richmond, CA - Refinery	02/28/2011 1:30:00 PM	Closed	Near	Green Card, Too many fuses on ground. Location: 5 NHF	Green Card, Too many fuses on ground in the middle of our Fresh Air job.	NL-Injury/Illness - Employee Injury	
24071	Richmond, CA - Refinery	02/20/2011 7:00:00 AM	Closed	Near	Green Card, Bridge #145 misaligned, Location: Gate 31	Green Card, Bridge #145 across from escalinhouse at Gate 31 still not getting aligned. The stopgap traffic rail still missing.	NL-Lessons Learned	
24077	Richmond, CA - Refinery	02/27/2011 11:00:00 AM	Closed	Near	Green Card, Large crane travelling without escort, Location: 4 crude - Channel St	Green Card, Dividing on Channel St., a large crane travelling without escort. Crane veered into oncoming lanes	NL-Injury/Illness - Contractor Injury	
24078	Richmond, CA - Refinery	02/27/2011 9:45:00 AM	Closed	Near	Green Card, Steam tracing line leaking, Location: S1somax compressor deck above E-903A	Green Card, A1 S1somax compressor deck above E-903A, there is a steam tracing line leaking at union connection and valves are leaking steam too at face level.	NL-Injury/Illness - Employee Injury	
24079	Richmond, CA - Refinery	02/28/2011 11:00:00 AM	Closed	Near	Green Card, Contractor welding with no weld screen, Location: D8T 4	Green Card, Driving toward neither and contractor welding inside weldbay with no weld screen, m1 flashed into my eyes twice.	NL-Injury/Illness - Contractor Injury	
24081	Richmond, CA - Refinery	02/28/2011 10:00:00 AM	Closed	Near	Green Card, Forklift driver had no escort or helmet, Location: 4 Crude Parking Lot	Green Card, Forklift driver travelling with large pipe with no escort or flag man.	NL-Injury/Illness - Contractor Injury	
24082	Richmond, CA - Refinery	03/02/2011 11:00:00 AM	Closed	Near	Green Card, Contractor working without a harness, Location: 4 Crude	Green Card, Contractor working on top of a C-lander without a harness. Performing work at the edge with no tie off point.	NL-Injury/Illness - Contractor Injury	
24087	Richmond, CA - Refinery	10/18/2011 10:30:00 AM	Closed	Loss	Contract EE received a minor wrist scrape, First Aid.	Biggs: Lead scaffolding while transferring limbers from a forklift to trailer. Contract EE received a scratch to the wrist. Seen by Chevron Fire and released back to work.	Injury/Illness	(1) Improper PPE
24089	Richmond, CA - Refinery	10/18/2011 6:20:00 PM	Closed	Loss	Main, electrician injured left middle finger	CXX electrician placed left middle finger while doing PM on a 480V breaker. Electrician pulled foot on handle to stop the breaker and the handle hit his hand. When handle suddenly sprung back caused electrician's hand to hit against front cover. Bruise and swelling on left middle finger. Was seen at clinic and released back to work.	Injury/Illness	(1) employees failed to maintain control of the stored energy of the breaker and allow her hand to be in the line of fire of the handle.

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24137	Richmond, CA - Refinery	10/12/2011	12:00:00	Closed	Loss	High Chicksides in 3103	to settle for 24 hours. A train pipe a transfer was required or the FCCC would have shut down. A dilution plan which included a lead cut from 65 MBPD down to 55 MBPD was required to get the feed below 6 ppm. At \$320K, this is \$200/day for 6 days = \$120K.	Quality	(1) Cargo sample was not obtained and sent to Richmond from 3103 party terminal at BORCO. (2) Cargo was not tested on the incoming ship prior to arrival in spite of elevated chicksides levels
24141	Richmond, CA - Refinery	10/19/2011	11:00:00	Closed	Loss	Burning scaffold deck, inside C-7750	Koch. While are gouging inside of #2 man way on C-1750 on a tray section, sling landed on the scaffold deck catching the scaffold deck on fire. Fire blanket was used but most of it was the old style.	Fire/Exposition	
24146	Richmond, CA - Refinery	10/20/2011	5:30:00	Closed	Near Loss	Green Card, Narg a RHM plan on backside of PSM 1stg, Location, Gate 91	Green Card. We narg a RHM plan on the backside of PSM 1stg because lots of employees are nearby and drivers cannot see them while standing in the dark, near the street.	NL-Injury/Illness - Employee Injury	
24154	Richmond, CA - Refinery	10/24/2011	5:00:00	Closed	Near Loss	Green Card, Steam tracing	Green Card. Steam leak by C-130. Steam tracing leak.	NL-Lessons Learned	
24155	Richmond, CA - Refinery	10/24/2011	6:45:00	Closed	Near Loss	Green Card, Bridge 145 on Xylene and Channel St	Green Card. Bridge 145 on corner of Xylene St and Channel St has some grading missing on the SW end of bridge.	NL-Lessons Learned	
24156	Richmond, CA - Refinery	10/25/2011	12:55:00	Closed	Near Loss	Green Card, Pipe sticks out, tripping hazard, Location: Pond 2 South	Green Card. Pipe behind 2 South electrical distribution sticks up in an area often used as an area to enter Pond No. 2. Tripping hazards also sharp top could cut lower leg.	NL-Injury/Illness - Contractor Injury	
24157	Richmond, CA - Refinery	10/24/2011	2:00:00	Closed	Near Loss	Green Card, Electrical cord	Green Card. Electrical cord without color coded tape.	NL-Lessons Learned	
24158	Richmond, CA - Refinery	10/25/2011	8:00:00	Closed	Near Loss	Green Card, Co-worker backing up a truck without spotter, Location: FCCC	Green Card. Co-worker backing up a truck without a spotter in a crowded area.	NL-Injury/Illness - Contractor Injury	
24160	Richmond, CA - Refinery	10/26/2011	7:15:00	Closed	Near Loss	Green Card, Big steam leak, Location: S150max P-130A	Green Card. Saw a big steam leak by P-130A. It needs to be fixed because it is in the walkway and someone could get burned.	NL-Injury/Illness - Contractor Injury	
24162	Richmond, CA - Refinery	10/19/2011	4:03:00	Closed	Near Loss	The air supply tubing to P-22 disconnected and P-22, which was housing a JPB distichair, off of the Oregon Voyager, was crash-chained for approximately 2 hours.	At approximately 04:03hrs the instrument air supply to PCV304 on P-22 disconnected from the control valve causing it to fail closed. This deactivated the pump, which was boosting JPB from the Oregon Voyager to T-1799 for approximately 1 hour.	NL-Business Process - Business Process	(1) PCV 304 failed close due to loss of air supply. (2) Operator response time allowed for P-22 to overheat before cause of problem was discovered. (3) P-22 common trouble did not alarm. ISE to inspect and prove out P-22 common trouble alarm.
24163	Richmond, CA - Refinery	10/20/2011	10:45:00	Closed	Near Loss	Green Card, Moving	Green Card. Moving sector lift before inspection.	NL-Lessons Learned	
24160	Richmond, CA - Refinery	10/19/2011	10:40:00	Closed	Near Loss	EE reported having stomach pain after lunch	Upset stomach due to an existing condition	NL-Injury/Illness - Contractor Injury	
24191	Richmond, CA - Refinery	10/19/2011	11:00:00	Closed	Near Loss	JHT H2S alarm while installing blind	While installing a blind on K-270 fuel gas coalescer drain to relief, relief gas went to atmosphere through cracked flange and activated JHT H2S alarm. The maximum H2S indicated was 6 PPM during event. How did relief gas go to atmosphere through cracked flange? GHT off gas was routed to K-3850 Flare Gas recovery using K-24252 relief manifold. JHT operators blocked in slide valve to relief, off gas from GHT V-1671, and relief gas to K-24252 to isolate K-24252 relief manifold for K-270 blinding. JHT operator's gas tasted at bleedoff, system was clean, and released line to maintenance for blinding. Maintenance filters cracked flange to metal blind and operator noticed relief line pressure was increasing. Operator immediately asked fillers to evacuate area and all other workers in JHT area. Operator's isolated K-270 relief line with valve coming off relief header in 5 minutes or less. When JHT operators released K-270 relief line, the gas compressed to max 7.2 PSIG. PSV C1-689 lifted at 60 PSIG to JHT. In JHT, relief gas went to atmosphere through cracked flange to relief line to atmosphere through K-270 cracked flange for JHT relief. GHT closed APC312A V-1671 offgas to JHT K-24252 and opened 43B-C312B to relief K-3850 compressor. No flaring during event.	NL-Injury/Illness - Employee Injury	(1) GHT V-1671 off gas routed to K-3850 through JHT K-24252 relief manifold.

24191	Richmond CA - Refinery	10/18/2011 11:00:00 PM	Closed	Near Loss	JHT H2S alarm while installing blind	Maintenance filters cracked flange to retail blind and operator noticed relief line pressure was increasing. Operator immediately asked filters to evacuate area and all other workers in JHT area. Operator's isolated K-270 relief line with valve coming off relief header in 5 minutes or less. When JHT operators closed line from GHT, the line overpressured to max 73 PSIG. PSV C1-68 lifted relief H2S. JHT relief shut valves installed inadvertently jammed through relief H2S. GHT relief shut valves were not fully closed. GHT relief shut valves closed 43PC312A V-1671 offgas to JHT K-242/52 and opened 43PC312B to relief K-3950 compressor. No injuries during event.	NL-Injury/Illness - Concussion Injury	(1) GHT V-1671 off gas routed to K-3950 through JHT K-242/52 relief manifold.
24191	Richmond CA - Refinery	10/19/2011 11:00:00 PM	Closed	Near Loss	JHT H2S alarm while installing blind	While installing a blind on K-270 fuel gas collector drain to relief, relief gas went to atmosphere through cracked flange and activated JHT H2S alarm. The maximum H2S indicator was 6 ppm during event. How did relief gas go to atmosphere through cracked flange? GHT or gas was routed to K-3950 flare system. Relief gas was not routed to flare. JHT operators isolated K-270 relief valve by relief off gas from GHT V-1671 and JHT operators isolated K-242/52 relief manifold for K-270 blinding. JHT Controller's gas lifted at blinder, system was clean, and released line to maintenance for blinding. Maintenance filters cracked flange to retail blind and operator noticed relief line pressure was increasing. Operator immediately asked filters to evacuate area and all other workers in JHT area. Operator's isolated K-270 relief line with valve coming off relief header in 5 minutes or less. When JHT operators closed line from GHT, the line overpressured to max 73 PSIG. PSV C1-68 lifted relief line to atmosphere through K-270 cracked flange for blinding. GHT closed 43PC312A V-1671 offgas to JHT K-242/52 and opened 43PC312B to relief K-3950 compressor. No injuries during event.	NL-Environmental - Release	(1) GHT V-1671 off gas routed to K-3950 through JHT K-242/52 relief manifold.
24193	Richmond CA - Refinery	10/20/2011 10:00:00 AM	Closed	Near Loss	E-1548's area Hydro Blasting hose fitting loose	Vocals: E-1548's area while Hydro blasting a high pressure hose fitting was loose and the weep hole safety device directed pressure to grade and filling the hose.	NL-Injury/Illness - Concussion Injury	
24213	Richmond CA - Refinery	10/18/2011 10:00:00 AM	Closed	Near Loss	Green Card, Too many blows captured in the blind RIOP Control House	Green Card, Too many blows captured in the blind RIOP Control House causing a problem to traffic. There is a good size bump at the foot of the building that might cause a problem for the vehicles to negotiate safely through the area.	NL-Injury/Illness - Employee Injury	
24251	Richmond CA - Refinery	10/20/2011 3:00:00 PM	Closed	Near Loss	Small process line leak. One contractor truck hit another contractor pickup	A small leak was detected in the 10' above ground carbon steel line used for pooling the Hazardous Waste area's process water to #1 separator.	NL-Environmental - Operational Leak	
24254	Richmond CA - Refinery	10/20/2011 5:55:00 AM	Closed	Loss	Luck door	A halibut truck caught the pickups open door while making a sharp turn.	Transportation	(1) not using spotter when driving in tight areas
24256	Richmond CA - Refinery	10/20/2011 2:00:00 PM	Closed	Near Loss	Entry on an Expired Permit	Chevron Certified Safety: Chevron EE reported to F-1251 for final closure to inspect the outside for debris. EE was instructed to close the permit and return to the office for debris. EE had what he thought was all the required PPE. He entered. Attendant escorted him on the entry log and removed the red tape over the opening and turned around to check his pocket for the PPE Matrix to verify that it was correct, at which time Chevron EE thought it was okay to enter and started to climb inside. Entry Attendant asked for him to come back outside. Tryek was on the permit but not in the entrants possession because he didn't notice it when he looked at it. Entry Permit was not updated since 7 days prior due to no entry and had reached its expiration date. Ceramic Fibertape had been removed during this period and had not been put back up at the time of the incident, a new Permit had been generated but was not at entry location yet. Both EEs involved are SSE's.	NL-Regulatory Compliance - Non Company Policy	(1) Removal of the red tape from manway, not ready to enter yet.
24257	Richmond CA - Refinery	10/20/2011 3:40:00 PM	Closed	Near Loss	#7 Boiler South Radiant Well Spill Open	The South Well of #7 Boiler is split open ~6' to 8' long with a gap of ~8" to 12".	NL- Equipment Property Damage - Equipment Damage	
24259	Richmond CA - Refinery	10/20/2011 12:16:00 PM	Closed	Loss	Uneven surface on staging deck, relief ankle	On October 20, 2011 at approximately 12:10 hrs an East Side Operator tracing lines rolled their left ankle and descended to the platform. Staging was set up with both metal and wood planks (wood used to cover holes caused by process lines running vertically). Second platform from ground level. Is an additional platform (~18") Operator stepped from this platform onto wood and fell more discomfort continued to descend, dove to control room where they fell more discomfort and called supervisor. CFO was notified, Trained Operator and taken to Refinery Clinic for further observation.	Injury/Illness	(1) staging board made uneven surface, (2) SCS Mitigation Disturbance, Bladder, Process lines were running vertical through the platform requiring wooden planks to cover the holes. Minimum training needed for this kind of work. (3) SCS Personal Protection Factors. Operator stepped on the uneven platform. Operator did not see that the platform was uneven.
24260	Richmond CA - Refinery	10/20/2011 4:15:00 PM	Closed	Loss	Loss of electrical power to lamps.	Last FCC and Alloy flow indication due to Electrical PM work in RIOP power center One Why Not status of the first lamp equipment was powered from this location. Why. was not marked. See Joanne	Operational Process/Hazardous	(1) Loss of power, shut off

24277	Richmond, CA - Refinery	10/20/2011 10:00:00 PM	Closed	Near gasoline to T-991 premium (gasoline)	Individually transferred 901 bits of T-1688 regular out to investigate. At 2:51:12 it was discovered that the 12" vent line was open on another manifold allowing approximately 901 bits of T-1688 (regular gasoline) to drop to T-991 (premium gasoline).	NL-Quality - Product Contamination (111)	(1) Operator did not comply with the manhandling / switching procedure, (2) Audit on Manhandling process not enforced
24278	Richmond, CA - Refinery	10/21/2011 1:00:00 AM	Closed	Exhaust turns exposure	Certified Safety: While working on V-1931 first deck, contact EE was exposed to exhaust fumes from thermal combustion engine. Reported a head ache	Injury/Illness	(1) Exhaust fumes
24313	Richmond, CA - Refinery	10/21/2011 1:30:00 PM	Closed	JHT / Punched hand. Safety fell approx 20 feet	Time EE was lowering 4" safety from top deck of V-244 in the JHT to the ground. Caddling the Safety with one arm and holding rope with other hand. When EE let go of Safety the weight on the rope pinched hand between handrail and rope causing him to let go of the rope.	NL-Injury/Illness - Contractor Injury	
24318	Richmond, CA - Refinery	10/20/2011 2:30:00 PM	Closed	Wrench fell from deck	Wrench fell 1' from deck above rope inspectors	NL-Injury/Illness - Contractor Injury	
24321	Richmond, CA - Refinery	10/21/2011 10:35:00 PM	Closed	Contact EE bent down-crawl under pipe head or fell pop upper Back-Shoulder	Contact EE bent down-crawl under pipe (about 4'FT). Heard or felt pop upper back-shoulder. EE took 1st break. Reported incident to his supervisor after break on way back to Job Site. Welltech Red Hat Safety called requesting aid. Chevron Red Hat Safety called Chevron Fire Dept. who was on scene in about 2 minutes to aid.	Injury/Illness	(1) Tight working environment, (2) Poor body positioning
24326	Richmond, CA - Refinery	10/22/2011 12:10:00 AM	Closed	Contact EE bent down-crawl under pipe head or fell pop upper Back-Shoulder	Contact EE bent down-crawl under pipe (about 4'FT). Heard or felt pop upper back-shoulder. EE took 1st break. Reported incident to his supervisor after break on way back to Job Site. Welltech Red Hat Safety called requesting aid. Chevron Red Hat Safety called Chevron Fire Dept. who was on scene in about 2 minutes to aid.	NL-Injury/Illness - Contractor Injury	(1) Tight working environment, (2) Poor body positioning
24327	Richmond, CA - Refinery	10/22/2011 1:00:00 AM	Closed	Contact EE Abdominal Pain	Contact EE having Abdominal Pain. While in portable bathroom Chevron Fire Dept was notified by Contract supervisor that EE could not get up. CFD already enroute in response to another call	NL-Injury/Illness - Contractor Injury	
24329	Richmond, CA - Refinery	10/21/2011 2:18:00 AM	Closed	Fire occurred in space between vent stack and R-315.	Fire was reported in a train. Fire was located at R-315 in small space between R-315 and the H2 vent stack.	Fire/Explosion	(1) Tar based insulation became loose and resided on the vent. Once a train was shutdown and we started venting 700 degrees steam the tar auto ignited.
24330	Richmond, CA - Refinery	10/21/2011 8:10:00 PM	Closed	Fire occurred in space between vent stack and R-315.	Fire was reported in a train. Fire was located at R-315 in small space between R-315 and the H2 vent stack.	NL-Fire/Explosion	(1) Tar based insulation became loose and resided on the vent. Once a train was shutdown and we started venting 700 degree steam the tar auto ignited.
24330	Richmond, CA - Refinery	10/21/2011 8:10:00 PM	Closed	Contact EE Stomach pain	Received call on Moderate Radio from Welltech Red Hat Safety Rep. that EE was in Lunch Tent with Stomach Pain that's been on going for the past 3 days.	NL-Injury/Illness - Contractor Injury	
24340	Richmond, CA - Refinery	10/22/2011 7:36:00 AM	Closed	Mass Communication at Wash Pad. Existing Overhead Crane being worked on for repairs and possibly energized while Crane's lifting and rolling. Exchange Burnds with Mobile Crane	Mass Communication at Wash Pad. Existing Overhead Crane being worked on for repairs and possibly energized while Crane's lifting and rolling. Exchange Burnds with Mobile Crane	NL-Lessons Learned	
24342	Richmond, CA - Refinery	10/22/2011 12:15:00 PM	Closed	F305 FSC Chopped during shut down	A train - F305 FSC Chopped during controlled shut down due to high fuel gas header pressure. This also shut down the H2A auxiliary burners for steam production and the 600" steam system sagged causing the S/D of a plant for steam load shed.	Operational Process/Procedures	(1) 5 Why's in the Journal The root cause was the operators closing did not recognize that the pressure increase would be rapid as the last few burners were blocked in.
24344	Richmond, CA - Refinery	10/22/2011 4:00:00 PM	Closed	Near smoldering in C-1180	Labors had been milking out the column. A light was left on in the column during lunch. There was smoke on the light and it started to smolder	NL-Fire/Explosion	
24346	Richmond, CA - Refinery	10/22/2011 12:00:00 AM	Closed	Loss particle in the eye	While grinding in V-4206 (with faceshield, EE got something in his eye.	Injury/Illness	(1) Was wearing a faceshield while working but still got something in his eye. May want to wear goggles as well
24346	Richmond, CA - Refinery	10/22/2011 12:00:00 AM	Closed	Loss tank	While driving on SP Hill Road by 991 tank Fire fighter side swiped a guard rail causing damage to the passenger's side of duty rig (Monitor 60A).	NL-Transportation - Company	
24351	Richmond, CA - Refinery	10/22/2011 8:30:00 PM	Closed	Loss	While driving on SP Hill Road by 991 tank Fire fighter side swiped a guard rail causing damage to the passenger's side of duty rig (Monitor 60A).	NL-Equipment/Property Damage - Equipment	
24351	Richmond, CA - Refinery	10/22/2011 8:30:00 PM	Closed	Loss	Contract EE on LTS Piping job noticed Pinky Finger was a little sore and swollen and thought it may be a Bug Bite. EE notified supervisor who called Welltech Red Hat Safety who called Chevron Fire Dept. for assistance.	NL-Injury/Illness - Contractor Injury	(1) Bug bite
24351	Richmond, CA - Refinery	10/22/2011 8:30:00 PM	Closed	Loss	Contract EE on LTS Piping job noticed Pinky Finger was a little sore and swollen and thought it may be a Bug Bite. EE notified supervisor who called Welltech Red Hat Safety who called Chevron Fire Dept. for assistance.	Injury/Illness	(1) Bug bite

(1) Five Why Investigation 1. Why was the person injured

CUSA-CSB-0000123 EPA

24502	CA - Refinery	9:00:00 AM	Closed	Near Loss	Lost key for LOTO box	and lost in the bay. Per R 9930, in order for Plant Protection to unlock the locks for us we need an NLI in the system.	Process/Procedures - Safety Systems	(1) Hole-watch did not stop the Chevron employees from entering the column without proper PPE. (2) Employees did not evaluate methods to keep from losing their handrings. (3) The group made a poor decision in deciding not to wear their handrings. Employees did not adequately weigh all risks and violated the entry permit requirements for PPE required to enter the column.
24510	Richmond, CA - Refinery	10/16/2011 12:00:00 AM	Closed	Near Loss	Several employees observed climbing and entering C-1180 without hand haws.	C-1180 became available for entry inspection. An employee observed a small group in full PPE prepare to climb and enter the column. Before climbing several removed the hand haws at the suggestion of one person in the group.	NL-Injury/Illness - Employee Injury	
24525	Richmond, CA - Refinery	10/28/2011 4:40:00 AM	Closed	Near Loss	Contract EE H2S Badge alarmed while Hydro Bleating E-1190 C1	Contract EE Bledgo alarmed while Hydro Bleating E-1190 C1 at 4 Grade SID. Turnaround, EE OK when checked on by Safety Red Hat. Could not get reading from H2S Badge as it was Reset by EE per Contract Supervisor as indicated over molecular radio.	NL-Environmental - Release	
24573	Richmond, CA - Refinery	9/23/2011 12:00:00 AM	Closed	Loss	Received an NOV for open paint cans	Received an NOV dated 10/26/11 regarding the following incident: During a compliance inspection of the G416 (Leica) Paint Booth area on August 25th 2011, operators scanning containerize coloring/solvent residue were observed outside of the paint building and air filter system. This had not been counrised as a scorecard every prior to receiving the NOV.	Regulatory Compliance	(1) Paint crew foreman thought it was acceptable practice and was not aware of any new regulation regarding drying of paint.
24584	Richmond, CA - Refinery	10/10/2011 2:00:00 PM	Closed	Near Loss	Green Card. Operator fell walking over a thin bed of sand. Location: Across from FCC Control Room	Green Card. A Chevron operator fell when walking over a thin bed of sand caused by erosion. Drainage washed out the asphalt into a drain downstream. The drain cover is rusted and rim with sharp edges.	NL-Injury/Illness - Contractor Injury	
24585	Richmond, CA - Refinery	10/10/2011 10:00:00 AM	Closed	Near Loss	ground causing tipping hazard. Location: 91 Gale Parking	Green Card. Groves and trash on ground in between the cars at 91 Gale parking lot making a tripping and slipping hazard.	NL-Injury/Illness - Contractor Injury	
24586	Richmond, CA - Refinery	10/10/2011 7:00:00 AM	Closed	Loss	Green Card. Wind sock needs to be replaced. Location: Calhoun St.	Green Card. Wind sock at Calhoun St and Forge St needs to be replaced.	NL-Lessons Learned	
24590	Richmond, CA - Refinery	10/10/2011 12:00:00 AM	Closed	Loss	C-1940 Analyzer sample probe crushed	C-1940 analyzer sample probe was crushed when the isolation valve was closed without retracting probe first.	Equipment/Property Damage	(1) Inadequate labeling/identification of valve with analyzer probe inserted.
24597	Richmond, CA - Refinery	10/28/2011 10:30:00 AM	Closed	Near Loss	EE snaling violently	EE had stuffed a bundle E-1112 and started to feel bad. Went to the lunch tent. Someone hit the red button and CFD was on the way.	NL-Injury/Illness - Contractor Injury	(1) Pre-existing condition
24614	Richmond, CA - Refinery	10/17/2011 10:15:00 AM	Closed	Near Loss	Green Card. Weld Bay entrance was a blind corner when driving. Location: RLP	Green Card. Pickup truck passed Weld Bay entrance at an uncomfortably high speed. This entrance is at a narrow road immediately adjacent. It is also a blind corner from the direction truck was heading. Two people were standing at that corner when the truck traveling 15-20 mph passed within 3 ft. Had either of the two workers stepped out a full step, they would have been struck.	NL-Injury/Illness - Contractor Injury	
24616	Richmond, CA - Refinery	10/18/2011 8:30:00 AM	Closed	Near Loss	Green Card. LOTO not right. Location: Tank Farm T-31106	Green Card. LOTO not right. No locks on valve. Did not do job until proper procedure was followed (locks on valve).	NL-Lessons Learned	
24616	Richmond, CA - Refinery	10/26/2011 8:00:00 AM	Closed	Near Loss	A loss of 4 drums of 227058982 and a gain of 4 cases of 227058497 were recorded during a physical count. On order #699704571 we need 4 cases. Instead of 4 drums - 6/23/11, Contract plant entered the C & R on 7/6/11. RLP never made the correction. A BDC add occurred on another order because the correction was not completed and a trace on 7/27 was sent to the Warehouse for investigation. Response on 8/8 from the Warehouse stated "did not see any problem with inbound". Asked Warehouse to trace Contract plant for further information. Warehouse sent a trace to the Contract plant on 8/8, got no response and did not follow up. Stock control traced contract plant directly on 8/27 and need a response on 10/11. A UDCR was sent out on 10/12 from Stock control to the Warehouse with all necessary corrections that need to be made and another BDC add on 9/19 for the same material cannot be corrected which is now causing an imbalance between DCS and SAP (M20).	Business Process	(1) What BDC add wasn't started why? RLP didn't complete CAR for products shipped in error to RLP why? RLP wasn't notified that LSC completed CAR why? LSC didn't communicate to RLP that CAR was complete.	
24617	Richmond, CA - Refinery	10/19/2011 8:00:00 AM	Closed	Near Loss	Green Card. Line not locked out from bypass. Location: Long View	Green Card. Walking down LOTO to remove spool. I noticed the line was not locked out from bypass.	NL-Lessons Learned	
24621	Richmond, CA - Refinery	10/18/2011 7:30:00 AM	Closed	Near Loss	Green Card. Big steam leak. Location: S. Isomex P-130A	Green Card. Walking to the job site saw a big steam leak that covered two walkways.	NL-Lessons Learned	
24622	Richmond, CA - Refinery	10/19/2011 10:00:00 AM	Closed	Near Loss	Green Card. Firewatch was not wearing red vest. Location: RLP	Green Card. Firewatch was not wearing red vest.	NL-Lessons Learned	
24622	Richmond, CA - Refinery	10/19/2011	Closed	Near Loss	Green Card. Concracle has	Green Card. Firewatch was not wearing red vest.	NL-Lessons Learned	

https://impactterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

24623	CA - Refinery	10/26/2011 AM	Closed	Near timber sticking out. Location: FCC V-13	Green Card, Concrete next to Vessel 13 at FCC has timber sticking out of floor. Creates slip, trip and fall hazard.	NI-Injury/Illness - Employee Injury	
24626	CA - Refinery	10/26/2011 8:30:00 AM	Closed	Near Green Card, Big Hole on steam line. Location: S. Isomex next to V-155B	Green Card, There is a Big hole on steam line with a big leak at S. Isomex next to V-155B northeast side.	NI-Injury/Illness - Employee Injury	
24627	Richmond, Refinery	10/27/2011 12:00:00 PM	Closed	Near Green Card, Wooden walkway needs to be repaired. Location: SDA Boundary	Green Card, Wooden walkway needs to be repaired or replaced. Materials missing and nails are sticking up.	NI-Injury/Illness - Employee Injury	
24629	Richmond, Refinery	10/27/2011 8:30:00 AM	Closed	Near Green Card, Wooden walkway needs repair. Location: S. Isomex - SDA	Green Card, Wooden walkway has deteriorated wood planking. One middle is hanging loose. Nails sticking up and can cause tripping hazard.	NI-Injury/Illness - Contractor Injury	
24637	Richmond, Refinery	10/26/2011 9:00:00 AM	Closed	Near Electrician tripped MK-10 off the white walking on MK-9	On 10/26/2011 Electricians were troubleshooting K-9 which would not start. At 9:30 AM, while testing the internal contacts on the starter they had removed from the cabinet, one of the test probes came in contact with a live 120 VAC plug and the housing. As a result, foreign voltage from a different source unknown to the mechanics was wired through the cabinet of both K-9 and K-10 which share the same control power. K-10 tripped off-line permitting the electricians to immediately re-energize the field Operator. The tripped power source was located and reset. The 86 lock-out relay was also reset and then K-10 was restarted and placed back on line. Prior to restarting K-10 it was requested that the 86 lock-out be removed. K-9 then started back in cabinet. K-9 failed to start and electrical troubleshooting continued.	NI-Equipment/Property Damage - Equipment Damage	
24638	CA - Refinery	10/26/2011 8:15:00 AM	Closed	Loss Escaped hand on pipe	While straightening a pipe stand the pipe started to fall. EE went to catch it and escaped his hand. EE was wearing gloves and the skin wasn't broken	Injury/Illness	(1) In a hurry
24648	CA - Refinery	10/26/2011 7:25:00 PM	Closed	Near Contract EE Pain in Left Knee	Contract EE Pain in Left Knee. Contract EE Stated: Stepped off Bus and it just popped.	NI-Injury/Illness - Contractor Injury	
24651	Richmond, Refinery	10/26/2011 8:59:00 PM	Closed	Near Contract EE not feeling well	Contract EE not feeling well. EE stated to Yellowed Safety Red Hat (on way to work was not feeling well). Thought being outside in fresh air would make him feel better.	NI-Injury/Illness - Contractor Injury	
24654	Richmond, Refinery	10/27/2011 3:30:00 AM	Closed	Near EE Right Knee Hurting	EE Right Knee Hurting.	NI-Injury/Illness - Employee Injury	
24670	CA - Refinery	10/27/2011 4:45:00 AM	Closed	Near Tripped & almost fell on stairs	Tripped & almost fell going up stairs. Would have fallen except was holding material. Problem was that I was distracted & not paying proper attention to what I was doing.	NI-Injury/Illness - Employee Injury	
24674	Richmond, Refinery	10/26/2011 10:00:00 AM	Closed	Near Green Card, Vehicle was falling unattended. Location: D&R Refining lot	Green Card, While searching for someone, I noticed a truck in the lot with the door open. When I returned about a minute later, it was still open, and someone walked out. I asked if it was their vehicle - No. So I approached the vehicle to shut the door and noticed it was idling unattended	NI-Lessons Learned	
24680	Richmond, Refinery	10/27/2011 7:30:00 AM	Closed	Near Wastepad overhead crane cable jumped above	Received call on radio to look at the overhead crane at the wastepad. The wire had jumped on the headstock and was trying to pull the wire down. Someone had been on the headstock and was leaning out to fix the wire located between the shafts while the headstock & wire were being lowered. Used SWA to get the right people for the job.	NI-Equipment/Property Damage - Equipment Damage	
24705	Richmond, Refinery	10/26/2011 5:00:00 PM	Closed	Near Certified Safety, Sore Knee	Certified Safety: EE yesterday toward the end of the shift, started to feel some discomfort in his knee. He doesn't remember anything that he did or have happen to him that would cause any discomfort. This morning after the All Call meeting EE reported his condition to his Red Hat who in turn notified Chairman and he was taken to the Refinery Clinic to be checked.	NI-Injury/Illness - Contractor Injury	
24726	CA - Refinery	10/27/2011 2:00:00 PM	Closed	Near H2S monitor went off	EE was sitting in the smoking pool with 3 other people when the H2S monitor went off. The other 3 did not go off.	NI-Injury/Illness - Contractor Injury	
24746	Richmond, Refinery	10/27/2011 4:40:00 PM	Closed	Loss Foreign body in right eye.	A worker suffered from a foreign body in his right eye while in the process of installing pipe. The worker was wearing the proper protective equipment.	Injury/Illness	(1) Falling particles from elevated work area.
24746	CA - Refinery	10/27/2011 4:40:00 PM	Closed	Loss Foreign body in right eye.	A worker suffered from a foreign body in his right eye while in the process of installing pipe. The worker was wearing the proper protective equipment.	NI-Injury/Illness - Contractor Injury	(1) Falling particles from elevated work area.
24746	Richmond, Refinery	10/26/2011 3:30:00 PM	Closed	Loss Foreign body in right eye.	EE was grinding with face shield on, and a spark got in his eye.	Injury/Illness	(1) Safety glasses allowed the spark to get into EE's eye.
24808	Richmond, Refinery	10/26/2011 2:15:00 PM	Closed	Loss Particle in the eye	EE had particles in her pockets while she was rewatching. When she took	Injury/Illness	(1) Placed hands somewhere without the right protection. (2)

24809	Refinery	PM	Closed	Loss	splitter in finger	them out there was a splitter in her finger.	Injury/Illness	not aware of hand placement
24812	Richmond, CA - Refinery	1:40:00 PM	Closed	Near Loss	H2S Monitor went off	H2S Monitor went off	NL-Injury/Illness - Contractor Injury	
24822	Richmond, CA - Refinery	10/28/2011 8:15:00 PM	Closed	Loss	Smoldering Staging boards	During the lack of fire gouging inside the #2 manway on C-1500, some sparks fell on some staging boards in the bottom of the column. The boards started to smolder. A Hot Watch F-1550 reported the boards started burning. Operators determined it to be coming from inside C-1500.	NL-Fire/Explosion	(1) Hot slag
24827	Richmond, CA - Refinery	10/29/2011 10:00:00 AM	Closed	Near Loss	Bay Valve, 2 EEs sprayed	Bay Valve, 2 EEs were working on opening up a EBV on the P-1205's, came in contact with a diesel and water mixture on their clothing.	NL-Injury/Illness - Contractor Injury	
24828	Richmond, CA - Refinery	10/29/2011 10:45:00 AM	Closed	Loss	small fire 15' square	TOP INVESTIGATION, FOR COMPLETE REPORT SEE ATTACHED LINK. INITIAL REPORT - EE was holding a piece of the blanket so that grinding sparks were controlled. The blanket caught fire where the sparks were directed.	Fire/Explosion	(1) The was an oily substance on the fire blanket. When the sparks were directed to the blanket the stream of sparks ignited the blanket. (2) SOS: Training & Procedures: Hydrocoation on Weld Blanket Ignited. Hydrocoation had not been removed from the previous job area. Hydrocoation was not noticed during JHA by welders or attendants. (3) SOS: Training & Procedures: Fire Report was not filed by company employee as required. Incident was deemed minor (smoldering only) and weld curtain was immediately put out without any further consequences. The smoldering lasted for only a few seconds.
24833	Richmond, CA - Refinery	10/29/2011 12:17:00 PM	Closed	Loss	small fire 15' square	TOP INVESTIGATION, FOR COMPLETE REPORT SEE ATTACHED LINK. INITIAL REPORT - EE was holding a piece of the blanket so that grinding sparks were controlled. The blanket caught fire where the sparks were directed.	NL-Fire/Explosion	(1) The was an oily substance on the fire blanket. When the sparks were directed to the blanket the stream of sparks ignited the blanket. (2) SOS: Training & Procedures: Hydrocoation on Weld Blanket Ignited. Hydrocoation had not been removed from the previous job area. Hydrocoation was not noticed during JHA by welders or attendants. (3) SOS: Training & Procedures: Fire Report was not filed by company employee as required. Incident was deemed minor (smoldering only) and weld curtain was immediately put out without any further consequences. The smoldering lasted for only a few seconds.
24839	Richmond, CA - Refinery	10/29/2011 10:31:00 PM	Closed	Near Loss	Contract EE stomach ache	Call from Wellbuck Safety Red Hat that was with Contract EE in D&R S/D Turnaround Lunch Team with Stomach Ache. Chevron F&E Dept. called to administer aid.	NL-Injury/Illness - Contractor Injury	
24840	Richmond, CA - Refinery	10/29/2011 10:31:00 PM	Closed	Near Loss	Forklift vs. Cranelegger	Forklift at base of a crude C-1160 moving left outpaced P&G Grid Packing. Forklift was rolling forward when Cranelegger was bumped/bounced in the area of left. Call just below here. Cranelegger was looking up watching lead of Flex Grid Packing being lifted when bumped/bounced.	NL-Lessons Learned	
24843	Richmond, CA - Refinery	10/30/2011 3:40:00 AM	Closed	Loss	Contract EE Particle in Eye	Contract EE Particle in eye while Grinding pipe at 4 Crude LTS piping job.	Injury/Illness	(1) Improper PPE
24843	Richmond, CA - Refinery	10/30/2011 3:40:00 AM	Closed	Loss	Contract EE Particle in Eye	Contract EE Particle in eye while Grinding pipe at 4 Crude LTS piping job.	NL-Injury/Illness - Contractor Injury	(1) Improper PPE
24844	Richmond, CA - Refinery	10/30/2011 4:15:00 AM	Closed	Near Loss	Contract EE Particle in Eye	Worker working D&R LTS piping job lined welding hood up, took off glasses and wiped the sweat near his eye. Left right eye burn and was not sure if it was the sweat or something in eye. Called his Safety Red Hat as we tell everyone to report everything no matter how small it may seem to be. Called Chevron Fire Dept. to administer aid.	NL-Injury/Illness - Contractor Injury	(1) Removed safety glasses
24842	Richmond, CA - Refinery	10/31/2011 12:30:00 PM	Closed	Near Loss	FSC min fire on F340	During routine burner cleaning of F340 a operator blind on a burner that was recently put into service was found to be leaking fuel gas was blocked to min fire.	NL-Operational - Fire Run Out/Slow Down	(1) FSC min fire tip on F-340 Why - fuel gas heater high pressure tripped the FSC Why - an operator blind on a burner was leaking to the burner was blocked in, fuel gas heater pressure went high Why - did not communicate with burner operator so they could work heater pressure down Why - decided to taking blind without finishing one burner would overpressure heater
24855	Richmond, CA - Refinery	10/31/2011 8:30:00 AM	Closed	Loss	Chemical exposure at RARE caustic injection facilities	Major employee was bleeding from a blocked in caustic injection that he repair a line leak. He had on his helmet, safety goggles, face shield with chin cup, hard hat, and resistant gloves, hearing protection, and safety shoes. He was relieving pressure by breaking a compression fitting. Caustic squirted out of the tubing, spraying him.	Injury/Illness	(1) 1. Why did "above" happen? Verification There was pressure in the caustic line at the PRD 2. Why did "1" happen? There was no bleeders installed on the feed system job site review 3. Why did "2" happen? The chemical pump flusing was filled with no written engineering design. There was no EYD regarding installation. (2) In the past did not follow acceptable practice and no loss occurred. (3) No written engineering plans for installation

24969	Richmond, CA - Refinery	10/31/2011 10:00:00	Closed	Loss	Partial finger amputation	Cut back on E-575A and were loading their tools in the tool box attached to their truck. They were trying to close the lid on the tool box that was obstructed when TEE stuck his finger in to free up the lid when the lid slammed down on his finger cutting off the tip. At this time it is unknown if there is bone involved with the detached portion of the finger. EE was transported to the clinic with the detached portion of the finger on ice, the clinic did not treat, rather transported directly to John Muir Medical Center in Walnut Creek. Richmond Shiley Refractory was contacted and advised that there is a possible amputation and a route to John Muir to have the Shiley Refractory been asked to conduct OVA. Supervisors with any new information.	Injury/Illness	(1) Current tool box cover shocks do not work - Shocks were 10 yrs old and evaluating tool boxes is not on the maintenance checklist used when performing maintenance on the truck - Shock failure was perceived as a minor and non-critical repair and they have had them fail in the past with no consequences. (2) No verbal Loss Prevention Self Assessment (LPSSA) was completed between the 2 contractors and the contractor on the passenger side did not check that the line of the was clean prior to strutting the tool box lid.
24968	Richmond, CA - Refinery	10/26/2011 12:00:00	Closed	Near Loss	Severest SSE's from the same company did not know their Mentors.	SSE Audit team conducted 26 SSE audits during the week of 10/24/11 thru 10/26/11. On 10/25/11, 2 different auditors discovered 3 different SSE's did not know who their Mentor was and did not have a conversation with them. All were from the same company. Two of those did not have an adequate understanding of LPSA.	NI-Lessons Learned	(1) Why: Contracting company Mentors may have been unclear with SSE's. Why: Mentors misinterpreted role as Mentor. Why: No Mentor training was provided. Why: Mentor training was not part of Pre-shutdown activities.
24966	Richmond, CA - Refinery	10/31/2011 10:45:00	Closed	Loss	Contract EE Facial Laceration while Grinding.	Contract EE was Grinding in tight quarters when Grinder bounced, hitting and cutting through Face Shield resulting in cut to face around Left Cheek Bone area.	NI-Injury/Illness - Contractor Injury	(1) 1. Why did 'above' happen? The grinder slipped from the right hand and caused the left hand to jerk 2. Why did 'it' happen? Grinder was positioned toward face with very little room to maneuver. 3. Why did '2' happen? No other position to place grinder to clean the head 4. Why did '3' happen? 1st line was cut in a place that was adjacent to perpendicular insulated line that was 4' away.
24966	Richmond, CA - Refinery	10/31/2011 10:00:00	Closed	Loss	Contract EE Facial Laceration while Grinding.	Contract EE was Grinding in tight quarters when Grinder bounced, hitting and cutting through Face Shield resulting in cut to face around Left Cheek Bone area.	Injury/Illness	(1) 1. Why did 'above' happen? The grinder slipped from the right hand and caused the left hand to jerk 2. Why did 'it' happen? Grinder was positioned toward face with very little room to maneuver. 3. Why did '2' happen? No other position to place grinder to clean the head 4. Why did '3' happen? 1st line was cut in a place that was adjacent to perpendicular insulated line that was 4' away.
25036	Richmond, CA - Refinery	11/1/2011 10:00:00	Closed	Loss	Grinder valve acid leak (shut down of the V-1410F sifter and condenser)	Acid leak in the valve body of the grinder valve, located at the bottom of the acid sifter. V-1410F sifter and condenser R1410 KFF will have to be shut down and cleaned up for repair.	Equipment/Property Damage	(1) The valve liner was mechanically damaged which resulted in acid induced corrosion on the Cast CS valve body.
25007	Richmond, CA - Refinery	10/31/2011 10:00:00	Closed	Loss	Poison Oak Contact on Mechanic	Contractor employee had an apparent reaction to poison oak. He was not sure when he made contact.	Injury/Illness	(1) 1. All poison oak had been removed prior to start of job - removal by Enryon. Residual oil likely remained in dirt and areas near by where the poison oak was located.
25145	Richmond, CA - Refinery	11/2/2011 9:20:00 AM	Closed	Loss	FC3074 dropped all ammonia injection system for A Train SCR	FC3074 dropped all ammonia injection system for A Train SCR causing the loss of NH3 injection to the SCR. Nox emissions were high for about an hour before injection was re-established and brought under control.	Environmental	(1) See Journal for investigation and findings to date - investigation ongoing need to patch BAADAD for a maintenance window to troubleshoot system.
25150	Richmond, CA - Refinery	11/2/2011 4:40:00 PM	Closed	Loss	Particulate in the eye	The Officer had just completed initiating a bus prior to entry into 91 Gate. As she was walking back to the gate house she noticed an irritation in her eye.	Injury/Illness	(1) The Officer was performing her regular duties at 91 Gate. Signing in vehicles and inspecting trucks before entry into the refinery. The Officer was wearing all her required PPE (Hard Hat, Safety Vest, and Safety Glasses). When the Officer noticed her eye was irritated she informed the lead Officer and went inside the restroom to look in the mirror. When she came out of the restroom the lead Officer asked her if she saw anything, she said "no but it still feels irritated as if something is in it". The Lead Officer then called Chevron Fire to report a possible particle in the eye. When Chevron Fire arrived they also did not find anything in the Officers eye but to be sure they decided to go ahead and flush her eye. They then recommend the Officer go to the clinic for further evaluation. The Officer was transported to the Chevron clinic and evaluated and no source of an irritation was found. It was determined what caused the irritation. The nurse at the clinic said it was possible a piece of dirt or even an eyelash could have been caused by a chip eye. The nurse stated the irritation to the eye and the irritation was gone by the time the Officer arrived at the clinic. The nurse cleaned the Officer to return to work. (2) The Officer was performing her regular duties at 91 Gate. Signing in visitors and inspecting trucks before entry into the refinery. The Officer was wearing all her required PPE (Hard Hat, Safety Vest, and Safety Glasses). When the Officer noticed her eye was irritated she informed the lead Officer and went inside the restroom to look in the mirror. When she came out of the restroom the lead Officer asked her if she saw anything, she said "no but it still feels irritated as if something is in it". The Lead Officer then called Chevron Fire to report a possible particle in the eye. When Chevron Fire arrived they also did not find anything in the Officers eye but to be sure they

26160	Richmond, CA - Refinery	11/2/2011 4:40:00 PM	Closed	Loss	Particle in the eye	The Officer had just completed nitroting a blue prior to entry into 91 Gate. As she was walking back to the gate house she noticed an irritation in her eye.	NL-Injury/Illness - Contractor Injury	(1) The Officer was performing her regular duties at 91 Gate. Signing in visitors and inspecting trucks before entry into the refinery. The Officer was wearing all her required PPE (Hard Hat, Safety Vest, and Safety Glasses). When the Officer noticed her eye was irritated she informed the lead Officer and went inside the restroom to look in the mirror. When she came out of the restroom the lead Officer called her to the station and said "You have a particle in your eye." She reported a possible particle in the eye. When Chevron Fire arrived they also did not find anything in the Officers eye but to be sure they decided to go ahead and flush her eye. They then recommended the Officer go to the clinic for further evaluation. The Officer was transported to the Chevron clinic and evaluated and no source of an irritation was found. It was not determined what caused the irritation. The nurse at the clinic said it was possible a piece of lint or even an eyelash could have been caused by a dry eye. There was no damage to the eye and the irritation was gone by the time the Officer arrived at the clinic. The nurse cleared the Officer to return to work. (2) The Officer was performing her regular duties at 91 Gate. Signing in visitors and inspecting trucks before entry into the refinery. The Officer was wearing all her required PPE (Hard Hat, Safety Vest, and Safety Glasses). When the Officer noticed her eye was irritated she informed the lead Officer and went inside the restroom to look in the mirror. When she came out of the restroom the lead Officer called her to the station and said "You have a particle in your eye." She reported a possible particle in the eye. When Chevron Fire arrived they also did not find anything in the Officers eye but to be sure they
26166	Richmond, CA - Refinery	10/20/2011 1:15:00 PM	Closed	Near Loss	Loss of NH3 to the 2000 HRSG.	Titan 2000 NH3 dropper tripped closed due to a false high level in the level vessel	NL-Business Process Interruption	(1) Have been receiving dirty "wet" NH3 from SISO causing a multipio of temperature and level swings.
26160	Richmond, CA - Refinery	10/19/2011 10:30:00 AM	Closed	Near Loss	Green Card, Steam line leaking from fittings.	Green Card, Steam line leaking from fittings.	NL-Lessons Learned	
26162	Richmond, CA - Refinery	10/20/2011 10:30:00 AM	Closed	Near Loss	Green Card, Union leaking steam a lot. Location: S.	Green Card, Union leaking steam a lot behind Tank V2531	NL-Lessons Learned	
26164	Richmond, CA - Refinery	10/26/2011 10:00:00 AM	Closed	Near Loss	Green Card, Person drinking being cut prime location. Location: Plant.	Green Card, Person was drinking too fast and talking on the phone. Tried to get the drivers attention but he did not see me.	NL-Lessons Learned	
26163	Richmond, CA - Refinery	10/25/2011 7:00:00 AM	Closed	Near Loss	Green Card, Steam leak. Location: S. Isomax MP-102	Green Card, When I tried to help a crew member setup the job, saw a steam leak overhead that needs to be fixed before someone gets burned.	NL-Lessons Learned	
26167	Richmond, CA - Refinery	10/27/2011 7:00:00 AM	Closed	Near Loss	Green Card, Light standard for weld bay. Location: RLP	Green Card, Light standard for Weld Bay.	NL-Lessons Learned	
26201	Richmond, CA - Refinery	11/2/2011 3:30:00 PM	Closed	Near Loss	Pipe dropped while being lowered from column	Vessel - While lower 2-200 lengths of aluminum pipe from C-1100 the lower height became disconnected. The lower height fell about 6 ft. The area had been taped and tagged before the job started. No Damage to anything	NL-Equipment/Property Damage - Equipment	(1) Had not checked the ties and clamps before lowering the pipe
26228	Richmond, CA - Refinery	11/2/2011 6:45:00 AM	Closed	Loss	Operator was sprayed with Carbon Disulfide solution on arm while filtering material into a vial.	The Operator was transferring a solution of FCC Medium Cycle Oil (MCO) and Carbon Disulfide (CS2) into a 2 mL target vial for GC Analysis. The QCO was pressure filtering the solution using a 3 mL syringe passing thru a 13 mm diameter 2 um filter. The solution was too viscous and caused material to spray out from the syringe filter assembly. It is unknown if a portion of the CS2 splash onto the Operator. The Operator had the proper PPE and performed the material spraying into other surfaces of the body. A major portion of the solution was sprayed on NOMEX sleeve and portion of the wrist of the Operator	NL-Injury/Illness - Employee Injury	(1) Operator was filtering material into vial containing CS2.

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25328	Richmond CA - Refinery	11/03/2011 AM	Closed	Loss	Carbon Disulfide solution on arm while filtering material into a vat.	Injury/Illness	(1) Operator was filtering material onto vat containing CS2.
25329	Richmond CA - Refinery	11/03/2011 PM	Closed	Loss	PL Oleni Feeder 12 KV Power Outage.	Equipment/Property Damage	(1) Time permitting get given to Facilities and of July but time immense didn't show up until mid November.
25305	Richmond CA - Refinery	11/03/2011 AM	Closed	Near	Lead key for Operator lock #20319	NL-Business Process - Business Interruption	
25306	Richmond CA - Refinery	11/03/2011 PM	Closed	Loss	Contract EE stood up hitting hard surface knocking his neck.	NL-Injury/Illness - Employee Injury	(1) EE not aware of surroundings
25305	Richmond CA - Refinery	11/03/2011 PM	Closed	Loss	Contract EE stood up hitting hard surface knocking his neck.	Injury/Illness	(1) EE not aware of surroundings
25307	Richmond CA - Refinery	11/03/2011 AM	Closed	Near	Needed to unlock MOV # 2088	NL-Escorts Learned	
25311	Richmond CA - Refinery	11/03/2011 PM	Closed	Loss	At 19:20 H2S sensor activated (20 PPM) alarm A1006 (near P-1923 in GRU19 plant) that H2S was present. Area operators and CDD/rop investigated and found 34" high operable H2S sensor (near 13415) was not working. Operations and shift transfered water throughout the plant. Operations move from a control by plant evacuation, to sounding the evacuation siren. 11 Gasoline vapors were venting from med pump condensate valve packing in 1346 plant also gasoline and water was drained from the header. Operations verified and isolated 40K and 150K steam and condensate at GRU boundary. Once the boundary was isolated and flaring valve packing was repaired the odor of ReliQ/CL Gasoline disappeared before gradually disappearing altogether.	NL-Operational Process/Procedures - Safety Systems	(1) Failure to ensure proper isolation between 150K steam header and relief source
25312	Richmond CA - Refinery	11/03/2011 AM	Closed	Loss	EE working at NHT on piping at the E-410s received a particle in his eye. While grinding a piece of pipe a small piece of metal got into his eye. He was wearing all of his PPE.	NL-Injury/Illness - Contractor Injury	(1) Had all required PPE on. VZG (spoggle) upgrade may have made a difference.
25315	Richmond CA - Refinery	11/03/2011 AM	Closed	Near	EE reported tingling in his finger tips an swollen fingers.	NL-Injury/Illness - Contractor Injury	
25315	Richmond CA - Refinery	11/03/2011 AM	Closed	Near	Bay Valve employee (Coleman Stevens) working at 5 CAT on control valve was bitten by an insect to his left thumb causing his thumb to swell.	NL-Injury/Illness - Contractor Injury	
25405	Richmond CA - Refinery	11/03/2011 PM	Closed	Loss	Contract EE complaint of H2S exposure while working at C-250 second deck. He reported the area was not ventilated by the H2S sensor. EE personal H2S monitor appears normal and did not read off. The H2S sensor was not working and all DFR areas (H2T, NHT, 40RUDE) were all evacuated at 8pm. Ops will input the plant monitor going off.	NL-Injury/Illness - Contractor Injury	
25407	Richmond CA - Refinery	11/03/2011 AM	Closed	Near	Yellow patch on bumper and damaged grill. Looks like damage may have been caused by a yellow juice and its hands.	NL-Transportation - Contractor	
25409	Richmond CA - Refinery	11/03/2011 AM	Closed	Loss	LCO elbow leak at SDA boundary.	Environmental	(1) Pin hole leak, (2) Suspect cause could be CUI, need inspections to verify.
25409	Richmond CA - Refinery	11/03/2011 AM	Closed	Loss	LCO elbow leak at SDA boundary.	NL-Environmental - Spill	(1) Pin hole leak, (2) Suspect cause could be CUI, need inspections to verify.
25471	Richmond CA - Refinery	11/03/2011 PM	Closed	Near	RLOP Flare Tackler tripped due to nitrogen piping of the relief header prior to startup	NL-Environmental - Release	(1) Used past experience to complete task. (2) SOG: Training & Procedures. The impeller was being heated with torches. It

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25617	Richmond, CA - Refinery	11/8/2011 5:00:00 AM	Closed	Loss	Impeller broke while heating for removal	TOP INVESTIGATION Impeller was being removed from the balance manifold. During the heating process impeller broke into three pieces. No mechanics injured	Equipment/Property Damage	is standard machining practice to heat the impeller this way for balancing. (3) SOGSDesign & Engineering: There is no warning on Machinist Manual to not heat the impeller. (4) Soderberg, Design & Engineering (Design & Engineering of Equipment) - Crack in original impeller. The impeller was on pump frame in original position. The impeller was a full length crack. The crack about 6 inches long) approximately 180 degrees opposite of the keyway and had propagated into a balance hole. Metallurgy of new impeller. The impeller was made of white heat treated cast iron (according to the OEM). This metallurgy creates a hard, brittle material.
25551	Richmond, CA - Refinery	11/7/2011 7:00:00 AM	Closed	Loss	safety cartidge tipped	While cutting phosphates on table saw, safety device tipped, causing saw to be unusable until replacement cartidge can be bought.	Equipment/Property Damage	(1) saw shut down due to safety trip
25539	Richmond, CA - Refinery	10/26/2011 10:15:00 AM	Closed	Near Loss	Green Card, Many handrails that are loose. Location: #7 Pump Station	Green Card, A17 Pump Station there are many handrails that are loose. It is mostly wood handrails.	NL-Injury/Illness - Employee Injury	
25561	Richmond, CA - Refinery	10/27/2011 4:30:00 AM	Closed	Near Loss	Green Card, The wood deck is loose. Location: #1 Pump Station	Green Card, A17 Pump Station the wood deck is loose and has been removed many times.	NL-Injury/Illness - Employee Injury	
25563	Richmond, CA - Refinery	10/30/2011 2:15:00 AM	Closed	Near Loss	Green Card, Broken weld on gauge rail. Location: DSR C-1100	Green Card, While coming down from C-1100 I noticed some broken weld on gauge rail (not sure)	NL-Lessons Learned	
25565	Richmond, CA - Refinery	10/31/2011 10:00:00 AM	Closed	Near Loss	Green Card, Found a leak on gauge (fuel gas). Location: S. Isomax F-340A	Green Card, While working on a lumace, F340A, found a leak on gauge (fuel gas).	NL-Lessons Learned	
25566	Richmond, CA - Refinery	11/1/2011 3:00:00 PM	Closed	Near Loss	Green Card, Contractor unsafely towing weld machine with forklift. Location: RLOP	Green Card, Witnessed a contractor unsafely towing a weld machine with forklift. Forklift eventually fell off forts.	NL-Injury/Illness - Contractor Injury	
25567	Richmond, CA - Refinery	11/1/2011 2:30:00 PM	Closed	Near Loss	Green Card, Missing taglock. Location: Tank 1633	Green Card, Tank 1633 has a missing windsock and no other windsock in sight.	NL-Lessons Learned	
25570	Richmond, CA - Refinery	11/2/2011 8:30:00 AM	Closed	Near Loss	Green Card, A Forklift carrying fresh air with only the forts. Location: 4		NL-Injury/Illness - Contractor Injury	
25571	Richmond, CA - Refinery	11/2/2011 10:00:00 AM	Closed	Near Loss	Green Card, Valve leaking steam. Location: DSR F-3550	Green Card, Steam a forklift carrying a six pack of fresh air with only the forts.	NL-Lessons Learned	
25572	Richmond, CA - Refinery	11/2/2011 12:30:00 PM	Closed	Near Loss	Green Card, "Safety Suggestion Only" - Oily Grease Location: DSR 4 Crude Plant.	Green Card, Top deck of F-3550 by the steam drum there's a valve leaking steam.	NL-Lessons Learned	
25588	Richmond, CA - Refinery	11/9/2011 10:19:00 PM	Closed	Near Loss	Lost LOTO Key 2004	Green Card, On several occasions I found contractors wearing oily gloves when draining water from the cooler. I found greasy gloves and dirty rags sitting on top of the water lago.	NL-Business Process - Business Process	
25619	Richmond, CA - Refinery	11/9/2011 1:15:00 PM	Closed	Loss	Ankle Sprain	Worker was coming down scaffolding stairs. As he stepped with right foot onto last step, he "tripped" his ankle, twisting it and immediately fell into a gas pan. His co-worker, Justin Walker, drove him to the Chevron Fire Station 850 where he was met by UST Services Safety Manager Jim Jastram and was examined by Chevron Fire Fighters/EMTs. Worker was seen at Chevron Medical Clinic and was transported to Carolan's (at clinica request) in Martinez, CA for precautionary X Rays. X Rays were negative and worker was released to Regular work status effective immediately. THIS INJURY IS A FIRST AID CASE ONLY.	NL-Injury/Illness - Contractor Injury	(1) Employee was unaware of his surroundings. Employee was unattentive to his work activities
25619	Richmond, CA - Refinery	11/9/2011 1:15:00 PM	Closed	Loss	Ankle Sprain	Worker was coming down scaffolding stairs. As he stepped with right foot onto last step, he "tripped" his ankle, twisting it and immediately fell into a gas pan. His co-worker, Justin Walker, drove him to the Chevron Fire Station 850 where he was met by UST Services Safety Manager Jim Jastram and was examined by Chevron Fire Fighters/EMTs. Worker was seen at Chevron Medical Clinic and was transported to Carolan's (at clinica request) in Martinez, CA for precautionary X Rays. X Rays were negative and worker was released to Regular work status effective immediately. THIS INJURY IS A FIRST AID CASE ONLY.	Injury/Illness	(1) Employee was unaware of his surroundings. Employee was unattentive to his work activities

25627	Richmond, CA - Refinery	11/8/2011 1:30:00 PM	Closed	Near Loss	Green Card, LOTO was not properly documented. Location: 3 Substation	Green Card. While assisting a crew who was pulling a large supply wire to an existing reactor, discovered LOTO was not properly documented with a CVX JHM/LSV form. Action had been completed but not documented. Additionally, there was no lock box present for single point isolation LOTO.	ML-Lessons Learned	
25628	Richmond, CA - Refinery	11/8/2011 1:30:00 PM	Closed	Near Loss	Green Card, A Vault Box has a broken weight-rated locking mechanism. Location: 3 Substation	Green Card. While pulling into parking area near jobsite, noticed a vault box has a broken weight-rated lid.	ML-Lessons Learned	
25629	Richmond, CA - Refinery	11/8/2011 2:00:00 PM	Closed	Near Loss	Green Card, Bridge is deteriorating. Location: 315 Scales	Green Card. Brought to my attention by co-worker that a bridge is deteriorating and needs maintenance.	ML-Lessons Learned	
25631	Richmond, CA - Refinery	11/8/2011 5:00:00 PM	Closed	Near Loss	H2S monitors alarm	3 Personnel H2S alarms went off during a sock air job. They were bottlenotch and stand by personnel.	ML-Injury/Illness - Contractor Injury	
25638	Richmond, CA - Refinery	11/2/2011 2:00:00 AM	Closed	Loss	E-142A Tube Leak	The area operator noticed a hydrocarbon odor coming from the steam of the non-condensable vent from E-142A on his round. He collected condensate into a bottle from the drain of the non-condensable vent to the ground near V-142 and used a gas test & got a LEL of 5, H2S of 3, CO of 8ppm in the bottles' headspace. The Head Operator and STL confirmed the gasoline odor on the ground.	Equipment/Property Damage	(1) E-142A tube leak
25640	Richmond, CA - Refinery	11/10/2011 8:45:00 AM	Closed	Loss	While negotiating a turn onto Quarry Road from Main Tank Field road a Sub-Contract Hauler clipped a pickup truck, coming down Quarry Road just past the stop sign.	While negotiating a turn onto Quarry Road from Main Tank Field Road a Sub-Contract Hauler clipped a pickup truck coming down Quarry Road just past the stop sign. The Pickup Driver (Chevron Operator) stopped at the stop sign and pulled forward to give the Truck Driver more clearance to make the turn. When the Truck Driver made the turn he didn't realize the Operator stopped his vehicle until it was too late, as a result the dump truck clipped the rear end of the pickup.	Transportation	(1) There was miscommunication between the two drivers as the Dump Truck Driver was making the turn onto Quarry Road from MTF Road. The DT Driver assumed the Driver of the pickup was going to continue moving around the bend but, instead he stopped.
25640	Richmond, CA - Refinery	11/10/2011 6:28:00 AM	Closed	Loss	Loss of 800W steam production due to water entrapment the fuel gas.	The Cogeneration plant is equipped with auxiliary DUCT burners that are used for pressure control and demands on the refinery 800W steam system. These Duct burners are fired with Refinery fuel gas that is supplied from the #1 Power Plant via #6 F.G. line. The F.G. enters the Cogen plant and passes through a K.O. drum V-5290, before it passes on to the Duct burner elements. This K.O. drum is equipped with a high level SLD that will trip the duct burners in case of a high liquid level. The #6 F.G. can also supply other neighboring plants as operational needs dictate. During this particular incident, we were used to a supply of fuel gas from the Cogen plant to the Duct burners. The Duct burners were not firing and the Cogen plant was not producing steam. The Duct burners were not firing and the Cogen plant was not producing steam. The Duct burners were not firing and the Cogen plant was not producing steam. The Duct burners were not firing and the Cogen plant was not producing steam.	ML-Operational Process/Procedures - Safety Systems	(1) Excessive entrapped liquid in the FG line to V5290 Cogen
25640	Richmond, CA - Refinery	11/2/2011 1:00:00 PM	Closed	Near Loss	Loss of power to Data Center	Short power outage to Richmond Refinery Data Center. A/C units did not come on when power outage occurred. Power outage was due to a transformer malfunction elsewhere in the refinery.	ML-Equipment/Property Damage - Equipment	
25654	Richmond, CA - Refinery	11/2/2011 1:00:00 PM	Closed	Near Loss	Loss of power to Data Center	Short power outage to Richmond Refinery Data Center. A/C units did not come on when power outage occurred. Power outage was due to a transformer malfunction elsewhere in the refinery.	ML-Business Process Interruption	
25708	Richmond, CA - Refinery	11/11/2011 8:30:00 AM	Closed	Near Loss	Missing LOTO Keys	2 LOTO boxes, 1989 and 2003, used for isolation of the NH ₃ reactor system for a subalter are missing. LOTO was established ~4 weeks ago and as the NH ₃ reactor system was not used, the LOTO was not removed. The LOTO was not removed for the NH ₃ shutdown is complete.	ML-Operational Process/Procedures - Safety Systems	
25732	Richmond, CA - Refinery	11/5/2011 10:00:00 AM	Closed	Near Loss	Double Block and Bleed Valve closed up mentioned fail to ground	Chivort, EE was disconnecting a 3/4 inch clean up manifold and hose used for plant clean up on the first deck below V-1920 and V-1850. EE dropped the manifold on the deck, which was warped and the manifold bounced and landed in a way that allowed it to go over the ice rail and fall to the ground between the vessel Double Block and V-1922. No one was in the area at the time but EEC's working on C-1910 noticed the incident.	ML-Injury/Illness - Contractor Injury	(1) Improper lifting/lowering

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25921	CA - Refinery	7:00:00 AM	Closed	Near	Location: Pipeline West of Dresser Road	Loss	Green Card. Three 2" lines need to be supported. Just hanging loose in pipeline.	NL Lessons Learned	
25923	Richmond, CA - Refinery	11/15/2011 7:00:00 AM	Closed	Loss	Loss of Quarry Feeder (pneum)	Loss	Electric fuel A wire jumper failed on pole 122. Occurred on an open air. 12,000 volt circuit (Quarry Feeder).	Equipment/Property Damage	(1) copper corrosion
25934	Richmond, CA - Refinery	10/28/2011 8:00:00 AM	Closed	Near	Green Card. Porta polys are very dirty. Location: 31 parking by Tool Trailer	Loss	Green Card. The porta polys are very dirty.	NL Lessons Learned	
25935	Richmond, CA - Refinery	10/31/2011 4:00:00 PM	Closed	Near	Green Card. Truck came around corner too fast. Location: Behind Boiler Shop	Loss	Green Card. "Blind Corner". Was driving behind Boiler Shop when a delivery truck came around the corner too fast.	NL Injury/Illness - Contractor Injury	
25938	Richmond, CA - Refinery	11/2/2011 4:30:00 PM	Closed	Near	Green Card. A water cooling tower was leaking. Location: FCC Cooling Tower	Loss	Green Card. A water cooling tower was leaking from the flame up about 30' on the back side.	NL Lessons Learned	
25941	Richmond, CA - Refinery	11/9/2011 11:50:00 PM	Closed	Near	Green Card. Multiple leaks on SDA piping on SDA steam location. SDA at pillar TMA-4	Loss	Green Card. 3/4 piping on 1500 steam - multiple leaks waist and head high. Potential for a bad burn.	NL Injury/Illness - Employee Injury	
25942	Richmond, CA - Refinery	11/9/2011 8:00:00 AM	Closed	Near	Green Card. Some grading is missing on south end of Bridge 145. Location: Corner of Xylene/Channel St.	Loss	Green Card. Some grading is missing on south end of Bridge 145.	NL Lessons Learned	
25943	Richmond, CA - Refinery	11/7/2011 1:30:00 PM	Closed	Near	Green Card. Some of the grading around burners is bent and loose. Location: Aref T-3550	Loss	Green Card. Some of the grading around the bottom of the burners is bent and was loose.	NL Lessons Learned	
25944	Richmond, CA - Refinery	11/7/2011 12:00:00 PM	Closed	Near	Green Card. Steam leak on 8" pipe. Location: Near tank 3100 boundary.	Loss	Green Card. Steam leak on 8" pipe near Tank 3105 boundary.	NL Lessons Learned	
25945	Richmond, CA - Refinery	11/8/2011 4:30:00 PM	Closed	Near	Green Card. Conduit sticking out the back of Conductor parking lot	Loss	Green Card. Pickup parked with conduit sticking out of the back of bed. This could be a hazard in the early morning hours. Should have yellow caution tape tied to conduit.	NL Injury/Illness - Conductor Injury	
25949	Richmond, CA - Refinery	11/8/2011 7:30:00 AM	Closed	Near	Green Card. Two steam leaks location: S. Isomax SDA 20 South of 126	Loss	Green Card. We found two more steam leaks at the same location and it needs to be fixed because it's blowing near the eye level and someone will get burned if not fixed.	NL Lessons Learned	
25950	Richmond, CA - Refinery	11/8/2011 7:15:00 AM	Closed	Near	Green Card. Steam leak from C-130. Location: S. Isomax, buckled or south side of C-130	Loss	Green Card. Steam leaking out bad from C-130. We need someone to walk the job in SDA and write work order so someone can fix them.	NL Lessons Learned	
25951	Richmond, CA - Refinery	11/8/2011 7:00:00 AM	Closed	Near	Green Card. Bad steam leak. Location: S. Isomax P-130	Loss	Green Card. When I walked out to control room and walked to P-126, I couldn't get to the other side because steam leak so bad and it's hard to see the walkway.	NL Lessons Learned	
25952	Richmond, CA - Refinery	11/8/2011 8:00:00 AM	Closed	Near	Green Card. Overhead steam leak needs to be fixed. Location: S. Isomax SDA 59 South of C-126	Loss	Green Card. Overhead steam leak needs to be fixed because it's leaking out steam very bad. We need someone to look at the line to see what needs to be done or write a work order so someone can fix them.	NL Injury/Illness - Employee Injury	
25953	Richmond, CA - Refinery	11/8/2011 11:00:00 PM	Closed	Near	Green Card. An argon bottle fell in the unit after shutdown. Location: S. Isomax A Train	Loss	Green Card. An argon bottle fell in the unit after a shutdown didn't tie down with chain or wire. Someone did tie down but with rope.	NL Lessons Learned	
25959	Richmond, CA - Refinery	11/16/2011 8:15:00 AM	Closed	Loss	Fire Water Line Rupture	Loss	Fire Line rupture occurred in Main Yard area of refinery while preparing to perform the water flow test.	Equipment/Property Damage	(1) Many sections of the fire line are old carbon steel pipe that suffers from internal corrosion. Often times these lines experience failures when exposed to the increased pressure during flow testing. Keeping the lines open to the system limits the system pressure during flow tests.
26039	Richmond, CA - Refinery	11/18/2011 8:15:00 AM	Closed	Loss	Fire Water Line Rupture	Loss	Fire Line rupture occurred in Main Yard area of refinery while preparing to perform the water flow test.	NL - Equipment/Property Damage - Equipment Damage	(1) Many sections of the fire line are old carbon steel pipe that suffers from internal corrosion. Often times these lines experience failures when exposed to the increased pressure during flow testing. Keeping the lines open to the system limits the system pressure during flow tests.
	Richmond, CA - Refinery	11/18/2011 5:20:00 PM	Closed	Near	Fire Water Line Rupture	Loss	Fire Line rupture occurred in Main Yard area of refinery while preparing to perform the water flow test.	NL - Environmental -	

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26072	Refinery	PM	Closed	Loss	K-900's.	overpressured relief system and caused flaring.	Release	
26077	Richmond, CA - Refinery	11/18/2011 7:00:00 PM	Closed	Loss	Cherry picker and/or gaser stuck PRO pipe	Cherry Picker's outigger struck PRO outlet pipe on TP-1402A while coming up to move.	Equipment/Property Damage	(1) Lack of visibility or a spotter
26145	Richmond, CA - Refinery	11/18/2011 10:00:00 AM	Closed	Near Loss	Yellow Line process has no procedure	PSGR is a redundant (redundant) process mandated by law and refereed by OE to ensure that certain activities have been completed before a PSGR can be initiated. Operators were required to walk a system and "sign" the line and sign a PAID. This is then transferred to a master copy binder which also has to sign. There is no formal procedure or job aid for this process. The process has changed several times throughout the RLOP 2011 Major Turnaround. These changes have confused many people on this process. Several systems were PSGRD without yellow lined PAID's, turned in. More than half of 19 Plant's yellow lines were missing, and weren't transferred into the master copy binder until after 19 Plant was turning. Most are still unsigned in the master copy binder. It was decided to purge the yellow line process, leaving only an operator's word that the system was walked and verified. This means that PAID's in the database were marked as 100% completed, marked with an operator's CAL, and then would be marked on the master copy assuming the operator walked every single line on that PAID. The operator would then have to be tracked down at a later time to sign the master copy. It seems like the PSGR process is being rushed. What is the worst that could happen? Something could be missed that can cause injury, death, or damage to equipment. Do it safely or not at all. I decided to have a formal procedure for yellow flagging, and NOW I'll sign the PSGR process.	NL-Operational Process/procedures - Plant Run Out/Slow Down	
26169	Richmond, CA - Refinery	11/18/2011 5:50:00 AM	Closed	Loss	Mechanic was using a crow foot wrench and wrench snapped causing laceration to his arm.	Mechanic was using a crow's foot wrench to remove a bolt. When the wrench pulled on the wrench the wrench snapped and the mechanic hit his wrist on a nearby valve causing a laceration to his right wrist. EMT's were called out and the mechanic was taken to the clinic for further evaluation. Clinic release mechanic back to work with no restrictions.	Injury/Illness	(1) Poor quality tool.
26188	Richmond, CA - Refinery	11/17/2011 10:00:00 PM	Closed	Near Loss	Refinery Blend Recipe update failed	On Thursday, 11/18/2011 at approx. 1300hrs, the Refinery Products Blending Coordinator (PBC) attempted to update the Recipe file for an upcoming Blend recipe change using a three (3) Phase Automated File Transfer system. The updated recipe (LPC file) was placed in the "Blending Repository" on the PIN (Level 4), a network file share restricted to authorized personnel. Through the automated process, the file was successfully relocated (i.e., moved) to the Inform file transfer location in the DMZ (Level 3,5) as expected (aka PHASE 1). When it arrived at the Inform location, it remained there and never propagated to the BAS PCN AppNode (Level 3) destination as normally expected (aka PHASE 2). When the hop file that was previously placed in the Blending repository was moved (i.e., no longer present in that folder), the PBC expected to receive a "modified date" on the resident output file (confirmation file) in the blend repository (usually in a span of less than 10 minutes). When this did not occur in the expected timeframe, the PBC initiated a manual update on the BAS PCN AppNode (Level 10) (GUS 50) the move failed, indicating that the PBC's manual update failed. The PBC's support PCN Administrator was contacted and upon investigation, the PBC's support service on the PDOSC server was started (i.e., Running) on the PBC's PCN Profiler (Phase 2 Data move) but the file was not being moved. With the Blend recipe window rapidly closing, it was decided to reattempt the Contingent File transfer method. At approximately 1450, the manual file transfer was re-attempted by the PBC with the PCN Admin present. Without realizing any difference, it was re-attempted on GUS 07. Much to their surprise, it completed successfully, unaware of any misconfiguration. The Blend repository output file modified date reflected that the recipe update was completed at 1405 hrs. After further inspection, it was discovered that pointing to the old (Pre-Technology Refers) Application server name. The PHASE 2 destination driver was replaced in August 2011 but the shortcut was not updated on GUS10.	NL-Business Process - Business Process	(1) There were two GUS stations that needed to have their shortcuts updated, only one GUS station was updated since Network Administrator was unaware that other GUS station had a shortcut. Documentation has been corrected to show the correct environment and setup.
26200	Richmond, CA - Refinery	11/18/2011 1:16:00 PM	Closed	Loss	While resetting OST EE experienced pain in right elbow	Operators were performing tube over speed tip checks on TP-710. This was the 3rd time the lever was tripped. On the first two trips two operators worked together to pull up on reset lever. On the 3rd trip reset EE lined up reset lever himself with right hand felt a shock sensation in fold of elbow. Let go of lever and let the other operators complete reset. Came into hydro control house and reported it to the STL.	Injury/Illness	(1) Operator used an arm curling lifting motion to lift the load and put full load on bicep
26200	Richmond, CA - Refinery	11/18/2011 1:16:00 PM	Closed	Loss	While resetting OST EE experienced pain in right elbow	Operators were performing tube over speed tip checks on TP-710. This was the 3rd time the lever was tripped. On the first two trips two operators worked together to pull up on reset lever. On the 3rd trip reset EE lined up reset lever himself with right hand felt a shock sensation in fold of elbow. Let go of lever and let the other operators complete reset. Came into hydro control house and reported it to the STL.	NL-Injury/Illness - Employee Injury	(1) Operator used an arm curling lifting motion to lift the load and put full load on bicep
26200	Richmond, CA - Refinery	11/18/2011 1:16:00 PM	Closed	Loss	Breaker tripped causing a		NL-Operational	

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26222	CA - Refinery	11/30/00	Closed	Near Loss	power outage in the D&R Control House	Breaker #254-1 @ 254/255 tripped for unknown reasons causing a power outage in the D&R Control House.	Process/Procedures - Safety Systems	(1) Breaker opened unexpectedly
26232	Richmond CA - Refinery	11/19/2011 14:02:00	Closed	Near Loss	T-1504 Under Issue	The Mershon Utopian was discharging water and recovered oil into T-1504. This is not a typical process and all involved were aware of a potential H2S issue with the material being moved. All involved were aware that the transfer required transfer at rates considerably slower than normal for the ship. Approximately 25MBR. At 14:30 on 11/19, the ship began discharging the material at the slowest rate possible for their pumps, approximately 3MBR/hr, into T-1504. At 15:02 the STL received a "heads-up" from a company employee that was crossing the Richmond/Sun Refinery Bridge that there was an odor of H2S at the oil plaza. Plant Protection was called to verify the odor, and once it was determined the source was T-1504, the transfer was shut down immediately.	NL-Regulatory Compliance - Non Compliance - Air	(1) Requirements for a slower transfer rate were not communicated to the vessel coordinator. (2) F2, inadequate communication of expectations regarding procedures or standards
26244	Richmond CA - Refinery	11/20/2011 9:15:00	Closed	Near Loss	FCC and Alky flare localizer trip	SISO was requested prior to samples of C-130-C-140 and Tar shipped. In order to get a representative sample the DAO startup loop was circulated via P-140 and P-130 (P-140 thru LC-140 to C-130 top and bottom pans back to C-140). There was enough residual heat in C-130 that when the process (LCC) and unwanted solvent) circulated back into C-140 it flashed overhead into V-141 (low pressure solvent accumulation) and over pressured it sending solvent to V-150 (raffinate drum). This tripped the FCC and Alky localizer but no visible flame that we could see.	NL-Environmental - Release	(1) This was a unique situation and required a non-routine process to get this sample for startup. LPISA discussion did not consider residual heat would cause overpressure when circulation established (1) 5 WHY INVESTIGATION 1. Why did the problem occur? The oil from V-1420 to V-1410 and V-1410 to V-1410. The pressure differential between V-1410 and V-1410 was increased to drop the level in V-1410 and avoid shutting down the recycle compressor. 3. Why? The oil from V-1410 to V-1410 and V-1420 was fully closed when feed was pulled. This did not provide sufficient time to catch and control the level increase in V-1410.
26248	Richmond CA - Refinery	11/20/2011 6:45:00	Closed	Near Loss	Tripped RLOP flare localizer after shutting down feed pump due to vapor lock.	At approx 6:45am a leak was detected on an Edwards valve on 14 P/L feed system and the diesel sulfiding was stopped and HMC feed pump was shutdown. At this time H2 MVU was introduced to sweep oil off the Catalyst in R-1410 and R-1411 to the high pressure V-1410. V-1410 level came up sharply. At approx 6:50am OPS vented the Low Pressure separator V-1420 to relief to increase the pressure difference between the high pressure system and the low pressure systems to help evacuate V-1410's high level.	NL-Environmental - Release	
26258	Richmond CA - Refinery	11/15/2011 10:30:00	Closed	Near Loss	Green Card-Bottle Not Secured	Green Card - Noticed inside bottle cage safety chain was not hooked up to the bolles. The chain is prevents the bolles from falling	NL-Fire/Explosion	
26376	Richmond CA - Refinery	2/16/2013 12:00:00	Closed	Loss	Process improvement for HR manpower transactions	Process improvement for HR manpower transactions	Business Process	(1) Process Data Maintenance did not follow all required steps
26416	Richmond CA - Refinery	11/21/2011 8:45:00	Closed	Loss	Catalyst of P-1635 caused process upset in HR feed product to be isolated of test for 4 hrs.	In an attempt to warm up and switch to P-1635A in order to pull section screen on P-1635 pump started to cavitate causing a process upset. HRH had to be isolated of test for 4 hours. P-1635 work to min fires.	Operational Process/procedures	(1) Pump cavitation
26438	Richmond CA - Refinery	11/10/2011 2:15:00	Closed	Near Loss	Green Card-Need new Stop Sign	Green Card-Grating in front of 35" valve on T-3106 is loose and needs to be anchored to the 156mm	NL- Equipment/Property Damage - General Liability	
26446	Richmond CA - Refinery	11/14/2011 11:00:00	Closed	Near Loss	Green Card-Grating Loose	Green Card-Grating at 415 of Xylene and Channel St. grating is bad and in need of repair.	NL- Equipment/Property Damage - General Liability	
26454	Richmond CA - Refinery	11/15/2011 17:50:00	Closed	Near Loss	Green Card-No face shield or goggles	Green Card-Co-workers working at Alky unit in the yellow line zone without face shields and goggles on. They only wore safety glasses	NL-Injury/Illness - Contactor Injury	
26461	Richmond CA - Refinery	11/16/2011 8:05:00	Closed	Near Loss	Green Card-Truck lot running	Green Card-Unattended running truck at Times Tool Room. It was located more than 20' away from the tool room trailer and no one was around.	NL-Transportation - Contactor	
26482	Richmond CA - Refinery	11/16/2011 2:00:00	Closed	Near Loss	Green Card-Add Spilled to Ground	Green Card-Noticed some acid had spilled out of a hose. Make sure to cover or flush your hoses to make sure there is no residual product	NL-Environmental - SPM	
26485	Richmond CA - Refinery	11/16/2011 7:30:00	Closed	Near Loss	Green Card-Grating Missing on Bridge	Green Card-Grating next to the barrel storage area there is a section of the panel missing. Possibly causing severe damage to vehicles/lives in which caught in the vehicle could be less resulting in an accident. The bridge panel needed to either be replaced or a flat plate welded over the section that is damaged.	NL- Equipment/Property Damage - Equipment Damage	
26486	Richmond CA - Refinery	12/20/00 PM	Closed	Near Loss	Green Card-Missing Grating	Green Card-The grating on the south side of T-3106 next to 30" 150# valve needs to be clamped down. It is currently unsafe to walk in that area.	NL-Injury/Illness - Employee Injury	

26465	Richmond, CA - Refinery	11/14/2011 12:00:00 PM	Closed	Near Loss	Green Card-Missing Green Card-Grating	Green Card-When I pick up the carry deck and do the check list and I found a cable clamp was loose. The cover in the back is stuck and I could not open it to check the water level.	NL-Injury/Illness - Contractor Injury	
26473	Richmond, CA - Refinery	11/16/2011 1:00:00 PM	Closed	Near Loss	Green Card-Equipment Damage	During HNC startup activities at 10:00 am 11/23, RIOP ops personnel and SCD maintenance went out to work on 84LV466 to do a stroke check prior to pulling it in operation. At the time 84LV466 was in service. These valves control the level on High pressure separator V-1410. Control Air was manually switched to LV-489 to perform a stroke check prior to placing it in service. This took the air of LV-489 effectively sealing the valve where it was, leaving the OWS-5 with no level control. At approximately 10:10 OWS-5 reports that the level in V-1410 was rising. The OWS-5 stated he initially thought the level was erroneous. Looking at additional information on the board (V-1420 low pressure separator level Dropping), it was determined that the level was real and OWS-5 called out on the radio that the level in V-1410 was rising rapidly. Before mitigating action could be accomplished, K-1400 shut down on LV-HI. This also caused tripping. Air was switched back to LV466 and V-1410 level was brought under control. Subsequently the outside operators took steps to restart K-1400.	NL-Equipment/Property Damage - Equipment Damage	
26513	Richmond, CA - Refinery	11/23/2011 10:25:00 AM	Closed	Loss	K-1400 tripped on High Pressure separator(V-1410) High High Level	Mechanics were on a staging 25ft in the air removing old bolts to install a 14" blind when one of the mechanics felt something in their eye. They flush their eye at the job site but as a precaution they had the clinic verify that the particle was removed before they left for the weekend. No particle was found in the eye and mechanic was released back to work.	Operational Process/Procedures	(1) Miscommunication on control air setup
26517	Richmond, CA - Refinery	11/23/2011 12:00:00 AM	Closed	Near Loss	While installing a blind in a 14" fire water line mechanic got a partial laceration in the eye.	TOP INVESTIGATION: INITIAL DESCRIPTION:FOR FULL DESCRIPTION SEE LINK: IN INVESTIGATION: A fire was reported at approx. 18:19 hrs. in the area of the Redwood Refining compound of Xylene St. (SW corner of SO5S) Upon arrival, the fire was located between a Redwood Refining trailer and the LSM Contractor trailer. Initial inspection of the area is leaning towards a haz waste bin as the point of ignition. The LSM trailer has sustained significant damage. Investigation is ongoing.	NL-Injury/Illness - Employee Injury	(1) Waste bin and trailer were in close proximity to each other. (2) Varied material was placed in and around the hazardous waste bin. (3) Sideburn: Current Industrial Debris Hazardous Waste bins in use in the refinery are made of plastic and will catch fire when exposed to high heat from burning materials. (4) Sideburn: No forensic analysis performed by Chevron Fire Department
26532	Richmond, CA - Refinery	11/24/2011 12:00:00 AM	Closed	Near Loss	misplaced Labo Box key #2043		NL-Business Process Interruption	
26565	Richmond, CA - Refinery	11/24/2011 2:00:00 PM	Closed	Near Loss	a personal H2S monitor went off	Bigge - EE was on the deck at V1177 with 3 other EEs when his H2S monitor went off. The gases went off. No one smelled any H2S. When tested his blood a reading of 28ppm	NL-Injury/Illness - Contractor Injury	
26574	Richmond, CA - Refinery	11/24/2011 12:00:00 AM	Closed	Near Loss	lost LOTO key box 2043	LOTO box key lost 2043	NL-Operational Process/Procedures - Safety Systems	
26754	Richmond, CA - Refinery	11/25/2011 10:15:00 PM	Closed	Near Loss	F-3901 totalizer trip, no visible flame	F-3901 totalizer tripped, no visible flame while starting up crude unit C-1190 pressure controller opened up to control pressure and overwhelmed relief system. K-3950 running at the time	NL-Environmental Release	
26755	Richmond, CA - Refinery	11/25/2011 12:49:00 AM	Closed	Near Loss	F-3901 totalizer trip, flaring visible flame	F-3901 totalizer tripped and flared with visible flame due to K-242/52 shutdown on high liquid level at knockdown pool.	NL-Environmental Release	
26773	Richmond, CA - Refinery	11/27/2011 7:30:00 AM	Closed	Near Loss	While starting K-1900, 89PC694 opened to relief, overpowering FGR and tripping the FCC totalizer.	While starting up K-1900, 89PC694 opened to relief, overpowering FGR and tripping FCC totalizer.	NL-Environmental Release	
26794	Richmond, CA - Refinery	11/27/2011 12:00:00 AM	Closed	Near Loss	F-3901 totalizer trip, visible flame while circulating H2 at DHT	F-3901 totalizer trip visible flame. While circulating H2 at DHT overpressured to relief.	NL-Environmental Release	
26795	Richmond, CA - Refinery	11/27/2011 1:50:00 PM	Closed	Near Loss	K-1900 starting until normal feed gas is available.	RIOP starts are in the process of starting up after a major unground. Unit more process gases are available for K-1900 in fed other gases are in a substitute. Without proper gas feed to K-1900 the compressor will surge (unstable pressure swing) until a more favorable gas feed is available. The normal process gas which is fed to K-1900 will not be available until either LNC or HNC produce off gas. During this time, PCO is continuing to make several moves to optimize K-1900's operation including adding and removing N2, V-1920 vent gas, TKC overhead gas and plant fuel gas.	NL-Operational Process/Procedures - State Operating Limit (SOL) Exceeded	(1) Our current K-1900 startup procedure (GRU-NP-4501) does not include the use of N2 as supplementary feed gas during start-up. (2) The C-1500 mainline M-3 corrosion damage was reported late because the inspector did not see it, mark it, report it, or document it upon performing the initial inspection. The initial inspection was not adequate. (2) Although C-1500 vapor

[illegible]

27142	CA - Refinery	12/20/00	Closed	Loss	Feed Tri-Fan Exchangers E-1003/4/5	Initial investigation noted that the solvent pre-dilution FCCs (67FC1003/4/5) was manually packed in, allowing the coolers to plug.	Operational Process/Procedures	Checklist is a prerequisite for SDA startup procedure SDAN2010 and not a signoff step.
27150	Richmond, CA - Refinery	10/21/2011	Closed	Near Loss	Green Card, Possible sink starting. Location: Power Pole 4003/Xylene St.	Green Card, Looks to be a possible sink starting Power Pole 4003 on Xylene Street. Voids around pole.	NL-Lessons Learned	
27151	Richmond, CA - Refinery	11/10/2011	Closed	Near Loss	Green Card, Blind corner, Location: Quarry Rd. Bridge 173 at tank 556	Green Card, Blind corner at Quarry Road, Bridge 173, at Tank 556. Tree should be cut back in order to see traffic on blind corner. A lot of truck traffic going on right now.	NL-Lessons Learned	
27152	Richmond, CA - Refinery	11/17/2011	Closed	Near Loss	Green Card, Contractors walking on top of pallets. Location: 8 Warehouse	Green Card, Several contractors walking on top of pallets of blinds, located at 8 Warehouse. Blinds have dew sitting on top. Stop and talk with worker, walk around or have pallets moved.	NL-Injury/Illness - Contractor Injury	
27153	Richmond, CA - Refinery	11/19/2011	Closed	Near Loss	Green Card, Forklift driver moving load without securing it. Location: 5 oil parking lot.	Green Card, Forklift driver moving load without securing it. Dropping small pieces of piping, bolts and gaskets while traveling on uneven surface.	NL-Injury/Illness - Contractor Injury	
27155	Richmond, CA - Refinery	11/20/2011	Closed	Near Loss	Green Card, Unstable conditions for workers to eat. Location: 4 Crude lunch tent.	Green Card, Several pigeons sitting on lunch table. Footprints all over lunch tables. Two cats running over and across worker lunchbox. Unstable conditions for workers to eat.	NL-Lessons Learned	
27156	Richmond, CA - Refinery	11/21/2011	Closed	Near Loss	Green Card, Firehose box does not have blue caution tape. Location: RLO Ward Bay	Green Card, 2" pipe going to the firehose box is broken at the union and the firehose box does not have blue caution tape on it. Showing it does not work.	NL-Lessons Learned	
27157	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, Piece of pipe in walkway. Location: 4 Crude F-1100	Green Card, Piece of pipe in walkway. Ready for a head knocker.	NL-Injury/Illness - Employee Injury	
27159	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, Piece of conduit sticking out on walkway. Location: 4 Crude - Corners of F-1160 N	Green Card, In between pole and furnace where people walk was a piece of conduit sticking out ready for someone to run into it.	NL-Injury/Illness - Employee Injury	
27160	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, Pipes on pipe rack are wet and slippery. Location: RLP	Green Card, Pipes on pipe rack are wet and slippery.	NL-Injury/Illness - Contractor Injury	
27161	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, Steam Leak, Location: FCC Unit	Green Card, 450 lb. of steam leaking between flange and valve. In front of Tank EC5205A/7252, FCC unit.	NL-Lessons Learned	
27162	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, 4" flange leaking water. Location: FCC unit.	Green Card, 4" flange leaking water in FCC unit next to Tank EC5205A/7252.	NL-Lessons Learned	
27164	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, No barricade tape or tags. Location: 4 Crude parking lot	Green Card, Heavy traffic in a Crude parking lot. Biggs worker doing a pick with the drop. No barricade tape or tags. Although the lift was quick, someone could have walked under the load.	NL-Injury/Illness - Contractor Injury	
27165	Richmond, CA - Refinery	11/22/2011	Closed	Near Loss	Green Card, J.V. welder working inside weldbox without a weld screen. Several people complained of flash sparks hurting their eyes while sitting at the smoking post next to the lunch tent.	Green Card, J.V. welder working inside weldbox without a weld screen. Several people complained of flash sparks hurting their eyes while sitting at the smoking post next to the lunch tent.	NL-Injury/Illness - Contractor Injury	
27166	Richmond, CA - Refinery	11/23/2011	Closed	Near Loss	Green Card, Big polhode, Location: DBS Southside	Green Card, Big polhode on ground creates a big slip, trip and fall injuries. Between DBS electric box on cooling tower southside.	NL-Injury/Illness - Employee Injury	
27189	Richmond, CA - Refinery	12/2/2011	Closed	Loss	Spent H2 cylinder fell on operator's foot when being moved	Operator was changing out a spent H2 cylinder. While "rolling" the empty cylinder (outside of the BAS lab) over to the cylinder storage area to exchange it for a full one, the operator lost control of the empty cylinder and it fell landing on the operators left foot.	Injury/Illness	(1) Risk recognition is less than adequate. (2) No testing/ safety measures on moving empty gas cylinders. (3) Audit is less than adequate. (4) Side bar recommendations, (5) Tools or equipment set-up is less than adequate
27200	Richmond, CA - Refinery	12/2/2011	Closed	Near Loss	Vapor from V-1820 cause K-1800 PC 88P2084 open to melt and overweigh the Hydro relief header to FCR.	RLDP Operators were working to marry V-1820 (C9C4 stream) and treating section. C-1820 overhead pressured up and sent gas to K-1900 suction. In spite of an unbalanced bypass line left open during start up. Vapor from V- 1820 caused K-1900 PC 88P2084 open to relief and overweigh the Hydro relief header to FCR. The extra flow of Vapor/gasses cause FCC 220 SCF and RLDP no SCF deliveries up.	NL-Operational Process/Procedures - Safety Systems	(1) PC Bypass not identified when lining plant for start up. (2) Venting of more condensable is not included in startup procedures.
27202	Richmond, CA - Refinery	12/2/2011	Closed	Loss	Operator vehicle stuck side plate on T-3129	While doing rounds operator parked vehicle near T-3129. As they were leaving the area the operator struck the side plate on T-3129 with their vehicle causing moderate damage to the right side of the vehicle.	Transportation	(1) Drivers have been allowed to drive close to the tanks with no consequences. (2) Drivers have been allowed to drive close to the tanks with no consequences
27233	Richmond, CA - Refinery	11/30/00	Closed	Loss	4H2S process conditions caused high H2S in the fuel gas system.	High feed rates to 4H2S caused high process temps in C-1010 overhead carrying high H2S into fuel gas system.	Regulatory Compliance	(1) Operator did not increase DEA circulation sufficiently for the situation. (2) Operator did not send enough process gas to 20plant or #5125.

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Richmond, CA - Refinery	12/29/2011 4:50:00 PM	Closed	Tripped RIOP Furnace Isolator	RIOP GRU startup. System still unstable. Pressure excursion in K-1800 off gas compressor Vent Strip Vessel opened for short time causing isolator trip.	Operational Process/procedures	(1) Unit start-up, K-1800
Richmond, CA - Refinery	12/29/2011 6:10:00 PM	Closed	RIOP SUI Line Totalizer Trip	Overpressure condition in C-1920 tripped RIOP/FCC SISO and ALUX totalizers. While trying to stabilize C-1920 during startup, C-1920 bottoms temperature increased to point of firing up the column standing light ends overhead and causing the column pressure to increase. Overhead pressure peaked at 161 psd and quickly decreased as hot oil flow was decreased to the column reboiler.	Operational Process/procedures	(1) C-1920 column instability due to low feed Rate
Richmond, CA - Refinery	12/29/2011 4:50:00 AM	Closed	C-1920 overpressure tripped flare totalizers	At 04:50 C-1920 overhead popped to relief due to a loss of reflux and increased light ends from C-1810. 1. As Creckers start making light ends in the overhead going to GRU, C-1910 is too cold. The light ends, hydrogen, methane and ethane, carry out the bottom to C-1920 instead of spilling overheat to AH2S. 2. As these light ends come to C-1920, they ended up filling up V-1920 and overflowing FGR.	Operational Process/procedures	(1) L CO6 did not understand the importance of heat in C-1920 because of lack of experience
Richmond, CA - Refinery	12/29/2011 1:15:00 AM	Closed	Loss of ABCR	The four crude operator had a high event on 5 SIC and DP on 4 SIC. DMC was on the Atmospheric column all shift except the 4 SIC draw. It had issues and was adding erratically during the daylight and at turn over the orders were given to leave in Auto control and to leave it disabled from DMC. During the evening the PCO had been drawing more on 4 SIC during the shift to alleviate a high level in 5 SIC draw and a high DP on PDD04. At 1:06 the 4 SIC draw tray was drawn down into suction pressure was minimal. At this time we lost the ABCR and its cooling for C-1100. The result was an upset of the Column and product streams. This Temperature profile swing lasted hour.	Operational Process/procedures	(1) Training and experience
Richmond, CA - Refinery	12/29/2011 8:00:00 AM	Closed	Admin. Emergency Generator was found to not be on a PM Maint. schedule	It was discovered that the Admin. Bldg emergency generator was never put on a PM Maint. schedule.	NL-Lessons Learned	
Richmond, CA - Refinery	12/29/2011 11:00:00 AM	Closed	tending Oil InocATE when being Turned ON after Purged Testing	Isomax DMC was controlling CT30 Birna level with lock. The DACISO controller was turned off to do furnace testing on one of the RSD0 two FC Purifiers. When Operators turned DACISO back on only the reactor bed temperatures showed an elevation. It was then noticed that the LOGANAG limits on DMC set down to the bottom section. It was no longer controlling CT30 Birnlevel. This is a trending issue opportunity.	NL-Operational Process/procedures - Plan Run Outflow Down	(1) Project team considered taking automatic action in the particular scenario, but decided against automatic action to minimize the amount of custom programming required to do this. (2) Why did the operator not know what would happen if he/she had known the reactor bed temperatures? What could have occurred early in the commissioning of the controller.
Richmond, CA - Refinery	12/29/2011 8:30:00 PM	Closed	P-1801 tripped on low tube oil flow	At approximately 7:130 12S, P-1801 (HNF Feedpump) Developed a high outboard bearing temperature alarm lamp that reached 341 degrees. While ops were prepping P-1801A for service, they were still troubleshooting P-1801. In the process of troubleshooting, both P-1801 Lubo oil pumps were started. The tube oil system high pressure alarm initiated so operators shut down one of the tube oil pumps. At this point, the Lubo oil PC went white open so when ops tried to start the pump again it would not start. The pump on low tube oil pressure, P-1801B, was also not allowed to start. Plant is normal PED support has no issues with Reactors.	NL-Lessons Learned	(1) Operators Shutdown a tube oil pump with PG wide open
Richmond, CA - Refinery	12/29/2011 12:00:00 AM	Closed	located a PRD that was listed as inactive but is actually in service	Located PRD PC-280 that was identified as inactive. But the 10 tail line is actually available for service if needed and the PRD should be reactived	NL-Regulatory Compliance - Non	
Richmond, CA - Refinery	12/29/2011 12:00:00 AM	Closed	located a PRD that was listed as inactive but is actually in service	Located PRD PC-280 that was identified as inactive. But the 10 tail line is actually available for service if needed and the PRD should be reactivated	NL-Operational Process/procedures - Safety Systems	
Richmond, CA - Refinery	12/29/2011 11:50:00 AM	Closed	During 23 Plant PSA start up, one of the valves failed to operate and jeopardized FCC/AIR/LCO and SISO flare totalizers	During the PSA start up on 12/29/11 at 11:45, valve SS25 failed, causing overpressurization of R23. Excess flow was sent to FCC/AIR/LCO and SISO flares. These 4 totalizers stopped and a vehicle flame was observed all the flares. All valves on the SSA alert were previously checked a number of times to verify their proper operations prior to starting up the plant.	NL-Environmental-Release	(1) Why did we trip the 4 flare totalizers We tripped the totalizers thinking the SS25 valve closed. After checking 20 why did SS25 close during the PSA start up and the valve has a tendency to stick being down for 7 weeks and the valve has a tendency to pop if they are not cycled on a continual basis.
Richmond, CA - Refinery	12/29/2011 8:00:00 AM	Closed	TSS4 tank shell weeping hydrocarbon product.	Weep observed on the shell of T-634 that contained working capacity.	Equipment/Property Damage	(1) A deficiency in the quality check/inspection of work process caused a problem to be missed
Richmond, CA - Refinery	12/29/2011 11:00:00 PM	Closed	Air Products Nitrogen Delivery truck jack knifed on Channel St.	Air Products Truck with full load of nitrogen jack knifed while attempting a U-turn on Channel St. in front of Hydroprocessing.	NL-Lessons Learned	
Richmond, CA - Refinery	11/20/2011 12:00:00 AM	Closed	Memory Error on CCC card for wet gas heater compressor	On Sunday Evening operators received an alarm on CCC control page and believed they had a card failure in the CCC system for the Wet Gas Compressor. Control Engineers group investigated and determined the alarm to be a memory error (NVR Check Fault). As this is a system with triple redundancy, there was no immediate danger / risk to plant operations	NL-Operational Process/procedures - Plan Run Outflow Down	(1) Why Is K130 generating non-volatile RAM (NVR) Check fault alarm? The fault is being generated by the NVR. The inability of the routine to correctly calculate the checksum due to insufficient processing time. (2) Why Is K130 generating non-volatile RAM (NVR) check fault alarm? The fault is caused by a checksum discrepancy. The possible cause is: A possible memory error in one or more of the IOM card group

27510	Richmond, CA - Refinery	11/20/2011 12:00:00 AM	Closed	Near compressor	Memory Error on CCC	On Sunday Evening operators received and alarm on CCC control page and found that there was a memory error on the CCC system for the West Coast Compressor. Control System did not determine the alarm to be a memory error (NVR Check Failed). As the alarm was not a memory error, there was no immediate danger / risk to plant operations.	NL-Business Process - Business Process	(1) Why is K130 generating non-volatile RAM (NVR) check fault alarm? The fault is caused by a check sum discrepancy. The possible cause is: the inability of the routine to correctly calculate the check-sum due to inconsistent processing time. (2) Why is K130 generating non-volatile RAM (NVR) check fault alarm? The fault is caused by a check sum discrepancy. The possible cause is: A possible memory error in one or more of the ION card group
27512	Richmond, CA - Refinery	12/7/2011 10:00:00 AM	Closed	Loss on a piping elbow	Mechanic hit finger knuckle on a piping elbow.	Mechanic was cutting a piece of 3/4" pipe with a hacksaw and on the last forward motion of the cut the pipe separated and struck his left hand ring finger/knuckle on a 3/4" elbow.	Injury/Illness - Employee Injury	(1) First Aid. Documentation purposes mechanic not paying attention. (1) First Aid. Documentation purposes mechanic not paying attention.
27512	Richmond, CA - Refinery	12/7/2011 10:00:00 AM	Closed	Loss on a piping elbow	Mechanic hit finger knuckle on a piping elbow.	Mechanic was cutting a piece of 3/4" pipe with a hacksaw and on the last forward motion of the cut the pipe separated and struck his left hand ring finger/knuckle on a 3/4" elbow.	Injury/Illness - Employee Injury	(1) First Aid. Documentation purposes mechanic not paying attention. (1) First Aid. Documentation purposes mechanic not paying attention.
27580	Richmond, CA - Refinery	12/6/2011 7:00:00 AM	Closed	Loss	Particle in the eye	Field mechanic attempted to install cartridge seal and found the sleeve had an interference fit on the shaft. The seal was shipped back to shop to skin cut for clearance over shaft.	Injury/Illness - Employee Injury	(1) No shop standard to ensure the measurements of the ID of sleeves were recorded prior to disassembly.
27582	Richmond, CA - Refinery	12/5/2011 7:00:00 AM	Closed	Loss	P-128A Cartridge Seals	Field mechanic attempted to install cartridge seal and found the sleeve had an interference fit on the shaft. The seal was shipped back to shop to skin cut for clearance over shaft.	Quality	(1) No shop standard to ensure the measurements of the ID of sleeves were recorded prior to disassembly.
27582	Richmond, CA - Refinery	11/29/2011 3:30:00 PM	Closed	Loss	P-128A Cartridge Seals	Field mechanic attempted to install cartridge seal and found the sleeve had an interference fit on the shaft. The seal was shipped back to shop to skin cut for clearance over shaft.	Quality (In)	(1) No shop standard to ensure the measurements of the ID of sleeves were recorded prior to disassembly.
27585	Richmond, CA - Refinery	11/29/2011 1:30:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Injury/Illness - Employee Injury	
27587	Richmond, CA - Refinery	11/29/2011 3:30:00 PM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27588	Richmond, CA - Refinery	11/29/2011 3:30:00 PM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27590	Richmond, CA - Refinery	11/29/2011 6:30:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27594	Richmond, CA - Refinery	12/1/2011 4:00:00 PM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27595	Richmond, CA - Refinery	12/1/2011 8:00:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27597	Richmond, CA - Refinery	12/1/2011 10:00:00 PM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27598	Richmond, CA - Refinery	12/1/2011 10:00:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27599	Richmond, CA - Refinery	12/1/2011 6:30:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27600	Richmond, CA - Refinery	12/1/2011 6:00:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	
27601	Richmond, CA - Refinery	12/1/2011 6:00:00 AM	Closed	Near weld	Green Card. Broken Junction box and cover. Location: Substation 3	Green Card. Broken Junction box and cover at parking across from Substation 3 (Hazardous Storage Bin Parking)	NL-Lessons Learned	

27607	Richmond, CA - Refinery	12/28/2011 11:00:00	AM	Closed	Loss	Edibles Catering Van milled on road to Rock/Gun clubhouse	Ray has generously volunteered as a bystander in the past, due to his focus on motor vehicle safety. Unfortunately, Mark, the Edibles driver, stopped on the van gas instead of the brake, and crashed into the fence. (Said he's used to driving a clutch). Vehicle was stuck on the concrete embankment.	Transportation	(1) Driver of the catering van was backing up steep driveway and at the top of the driveway, instead of applying the brake, driver pressed the gas pedal instead which caused van to go over curb.
27607	Richmond, CA - Refinery	12/28/2011 11:00:00	AM	Closed	Loss	Edibles Catering Van milled on road to Rock/Gun clubhouse	Since it is a difficult road for caterers to get up to unload at the Rod & Gun Club House, I had asked Ray Aguilar, EQUIPMENT OPERATOR A AND TRAINER, to come guide the Edibles van driver. Mark, up wind signals, as Ray has generously volunteered as a bystander in the past, due to his focus on motor vehicle safety. Unfortunately, Mark, the Edibles driver, stopped on the van gas instead of the brake, and crashed into the fence. (Said he's used to driving a clutch). Vehicle was stuck on the concrete embankment.	Equipment/Property Damage	(1) Driver of the catering van was backing up steep driveway to deliver lunch. A spoiler was used to direct him up the driveway. Driver was able to back the vehicle up the driveway and at the top of the driveway, instead of applying the brake, driver pressed the gas pedal instead which caused van to go over curb.
27644	Richmond, CA - Refinery	12/27/2011 12:01:00	AM	Closed	Loss	HNF 600R tank T-3167 initiated off-test for viscosity at 40C	The RLOP Heavy Neutral Flasher (HNF) went on a 600R production run between 12:22 - 12:26. The tank finished on 12th night-shift. The tank was sampled for viscosity at 40C with a result of 89.3 cSt. The spec is 100 cSt minimum. The sample was tested again with a result of 99.2 cSt. A fresh sample was then pulled from T-3167. The result was 99.2 cSt. At this point, the tank was determined to be off-test and unsuitable for sales. During the 600R run, approximately 75% of the samples were below 100 cSt. Moves were made to increase viscosity (hotter vacuum stripper C-1650 overheat temperature and hotter vacuum furnace F-1650 outlet temperature) but were unsuccessful in increasing the viscosity to on-test conditions. Compounding the problem, the normal due to startup activities at the plant during the 600R run into T-3167 was being held out. The HNF, LNF, and GRU share a common operator work station (COW). A correction run was planned between 12:10 - 12:15 to increase the viscosity in T-3167. The run successfully restarted on-test conditions at T-3187. No off-test material was released from T-3167. Viscosity at 40C is a new specification (100 cSt minimum) on 600R that was introduced immediately after the 2011 RLOP Major Turnaround. Refinery and Base Oil MOCs were completed before to the Turnaround for this change. Communication and Training was completed prior to the Turnaround. However, no follow-up training was completed after the Turnaround was over (approximately 3 months later). Prior to this, there was no specification for viscosity at 40C. The limits for viscosity @ 40C were included into Flasher Tools (Correlations for sample monitoring tool) but conditional formatting (red = off-test, yellow = near off-test) was not in place.	Quality	(1) T-3167 failed off-test for viscosity. Why? Production from the HNF was less than the 100 cSt @ 40C minimum for approximately 75% of the run. Why? Timeliness of plant moves and start-up conditions did not allow enough time to increase viscosity. (2) Why? Production from the HNF was less than the 100 cSt @ 40C minimum for approximately 75% of the run. Why? T-3167 failed off-test for viscosity. Why? Production from the HNF was less than the 100 cSt @ 40C minimum for approximately 75% of the run. Why? New viscosity specifications were implemented just prior to the RLOP Major Turnaround. Employees were trained concerning the change but no follow-up training was completed after the Turnaround. (3) T-3167 failed off-test for viscosity. Why? Production from the HNF was less than the 100 cSt @ 40C minimum for approximately 75% of the run. Why? Flasher Tools did not have conditional formatting for off-test and near off-test conditions.
27650	Richmond, CA - Refinery	12/29/2011 9:30:00	PM	Closed	Loss	At approximately 21:30 hrs, K-242252 tipped off the due high levels on V-242243	At approximately 21:30 hrs, K-242252 tipped off the due high levels on V-242243 coming from V-1660 (DHT) V-1660 has a bad level transmitter (swelling report (61 COW3).	NL-Environmental - Release	
27663	Richmond, CA - Refinery	12/10/2011 12:00:00	AM	Closed	Near Loss	Loaded approximately 30 MB of off spec diesel to the Stera Concept	The Stera Concept is scheduled to receive 310 MB of High Density C-0.83 spec diesel. In an attempt to optimize operations set up T-3195 to load 49 MB of "on test" diesel in it.	NL-Quality - Incurred Product	(1) Operator did not involve subject matter expert(s) before deviating from orders.
27669	Richmond, CA - Refinery	12/11/2011 10:38:00	AM	Closed	Near Loss	LPG truck back hiked while attempting to do a u-turn.	An LPG truck tied to gain entry to the Refinery using the wrong gate (B1Gate) instead tried to back up but driver was told that he could not. Driver instead tried to complete a u-turn in the small space before the guard post and back killed the rear trailer. Trailers had residual LPG from a previous load other than that it was mostly empty.	NL-Transportation - Contractor	
27734	Richmond, CA - Refinery	12/12/2011 8:30:00	AM	Closed	Loss	Gate 121 shut on RTD boulder truck when entering VMAT	Elgige Driver backed into gate 121, the last gate before going onto the VMAT. Truck was entered the line opening when the gate shut on the RTD boulder truck. Driver did not notice gate shutting until the head line gate closed. Driver then needed to shut the last foot before entering the RTD boulder truck. Gate only needed to shut less than a foot before entering the RTD boulder truck. Passenger side mirror and body of the RTD boulder truck.	Equipment/Property Damage	(1) Gate malfunction
27783	Richmond, CA - Refinery	12/12/2011 8:00:00	AM	Closed	Near Loss	5 Cal led off test material from T-1459	12/12 dayshift switched 274 Line at 08:00 from T-634 to T-1459. Nightshift arrived and the RSL noticed rates not right in T-1459. Suspected that T-1459 was going backwards to 5 Cal at DCR. T&B and DCR began a search to find out why.	NL-Quality - Product	(1) 274 Line was set to a tank that could back flow into 5 Cal. The potential for back flowing T-1459 to 5 Cal was not recognized when the routing was set up.
27816	Richmond, CA - Refinery	12/20/2011 8:30:00	AM	Closed	Near Loss	Short-term loss of ABG RVP analyzer signal from Mages blend meter	RVP measurement from ABG analyzer was not updating on the Honeywell a Bed Pav status on the BPC Property graphic.	NL-Quality - Product	(1) End-of-line RVP analyzer, (2) End-of-line RVP analyzer
27841	Richmond, CA - Refinery	11/02/2011 8:30:00	AM	Closed	Near Loss	Green Card A lot of mosquitoes in work area.		NL-Lessons Learned	

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27842	Richmond, CA - Refinery	11/29/2011	7:00:00 AM	Closed	Near Loss	Green Card, Steam tank, Location: Near the new H2A plant on Channel St.	Green Card, Steam plant, while driving north on Channel St. near the new H2A plant, there's a steam tank that blows directly into driving lanes.	NL-Lessons Learned	
27845	Richmond, CA - Refinery	12/1/2011	8:45:00 AM	Closed	Near Loss	Green Card, Fatted oil, Location: Xylene St.	Green Card, Across Standard Oil switching station and Xylene St. a stop sign's red paint is faded away.	NL-Lessons Learned	
27846	Richmond, CA - Refinery	12/2/2011	8:00:00 AM	Closed	Near Loss	Green Card, Wind sock needs to be replaced, Location: Marfield Rd.	Green Card, Wind sock needs to be replaced, Location: TK-3074 on Marfield Road.	NL-Lessons Learned	
27847	Richmond, CA - Refinery	12/4/2011	7:00:00 AM	Closed	Near Loss	Green Card, Wind sock needs to be replaced, Location: Sour Water	Green Card, Wind sock needs to be replaced.	NL-Lessons Learned	
27852	Richmond, CA - Refinery	12/5/2011	10:30:00 AM	Closed	Near Loss	Green Card, The wind blows the stop sign down, Location: Zentene and Mill St.	Green Card, The wind blows the stop sign down at corner of Zentene and Mill Street.	NL-Lessons Learned	
27854	Richmond, CA - Refinery	12/5/2011	2:10:00 PM	Closed	Near Loss	Green Card, Valve stem with 1/2" gap, Location: RIOP - Pump 1911A.	Green Card, At Pump 1911A, there is a valve stem with no cap at eye level.	NL-Lessons Learned	
27857	Richmond, CA - Refinery	12/5/2011	10:00:00 AM	Closed	Near Loss	Green Card, No street sign on Channel St. Location: S. Isomax H2A Plant.	Green Card, No street sign of Channel Street driving through H2B plant. Should an emergency occur in the plant new employees would not know where to direct emergency crews.	NL-Lessons Learned	
27860	Richmond, CA - Refinery	12/6/2011	10:30:00 AM	Closed	Near Loss	Green Card, Palm blowing in the wind, Location: Dirt lot by Tool Room	Green Card, Up to date palm blowing in the wind.	NL-Lessons Learned	
27863	Richmond, CA - Refinery	12/6/2011	11:40:00 AM	Closed	Near Loss	Green Card, Pipe rack does not have guardrail, Location: T&S Control Rm	Green Card, Transfer & Blending control room alongside of building there is a pipe rack blow guard, but does not have a guardrail or handrail. Someone walking can fall into the hole especially at night.	NL-Injury/Illness - Employee Injury	
27868	Richmond, CA - Refinery	12/7/2011	8:00:00 AM	Closed	Near Loss	Green Card, An 8" steam pipe is leaking, Location: BES 1-3108	Green Card, An 8" steam pipe is leaking out steam and it looks like a welding job because it leaks out from the pipe not a fitting.	NL-Lessons Learned	
27867	Richmond, CA - Refinery	12/7/2011	8:30:00 AM	Closed	Near Loss	Green Card, Water line with hole at TL Location: S. Isomax	Green Card, Water line with hole in it spraying all over road. Located at S. Isomax Pipe Southwest of 2D Plant.	NL-Lessons Learned	
27869	Richmond, CA - Refinery	12/8/2011	8:40:00 AM	Closed	Near Loss	Green Card, Walkway needs rails, Location: Northside of BES Control Rm	Green Card, Northside of Control Room walkway needs rails by driveway. You have a good drop off.	NL-Injury/Illness - Contractor Injury	
27870	Richmond, CA - Refinery	12/8/2011	12:00:00 AM	Closed	Near Loss	Green Card, Wind sock needs replacing, Location: TK-3197 Pole Yard	Green Card, Wind sock needs replacing at TK-3197 Pole Yard.	NL-Lessons Learned	
27871	Richmond, CA - Refinery	12/8/2011	8:00:00 AM	Closed	Near Loss	Green Card, Electric cord plugged into generator with no GFI/G, Location: Lubricants Pk.	Green Card, Electrical cord plugged into portable generator with no GFI/G. If electrical cord gets dropped in water without protection, workers can be shocked or electrocuted.	NL-Injury/Illness - Contractor Injury	
27873	Richmond, CA - Refinery	12/13/2011	10:07:00 AM	Closed	Loss	HMC	On 12/13 at 10:07 AM hand operator received low pressure alarm and noticed VBCR and B S/C to H2C2H2B3S 1900 off. S/Cly 34000 psi. Operator received low pressure alarm the field operator heard and locked VBCR line shute. After checking P-1188/A and P-1189/A were operating properly, operator checked 1 FV020/A, and found the valve open 10% compared to normally operating 100% open. Instrumentation technician found FV020/A positioner control was tripped due to raising on a hot flange. This caused a partial short sending a signal to partially close valve.	Quality	(1) Improperly secured control was exposed to high heat which caused the wire to short and partially close FV020/A.
27874	Richmond, CA - Refinery	12/13/2011	12:00:00 AM	Closed	Near Loss	HNF find pump P-1601A tripped off line before P-1601 was placed in service.	P-1601A tripped off line. Pump was restarted with life-raft on. Once pump was up the shut-off was taken to normal and P-1601A tripped off line again.	NL-Equipment/Property Damage - General Liability	(1) inadequate procedure for Operator interface with the vibration monitor and trip multiply danger delay stations
27881	Richmond, CA - Refinery	12/12/2011	5:00:00 PM	Closed	Near Loss	IX-3615 PRD pop dale discrepancy discovered	Yesterday while field-walking some equipment, the FER Inspector discovered a discrepancy in the pop date for the SIS0 PRD IX-3615 on the H2B Train fuel gas filter coalescer K-335 (shown on the linked PID as PSV-355). The histories show this PRD was last popped in 6/12/2008 (once with it doesn't show in OERI), but the stamped field tag on the PRD shows it was last popped in 2002 (when the coalescer was installed).	NL-Environmental - Release	(1) The 705a Data Sheet for PRD# IX-3610 was incorrectly labeled as IX-3615. (2) There was less quality control in the PRD process prior to 2008.

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27941	Richmond CA - Refinery	11/27/2011 7:00:00 AM	Closed	Loss	Ergonomic sit to stand desk was damaged, payed repair during shutdown.	During the recent turnaround, the Ergo RSPF group was requested by Operations to supply a section of desks, chairs and storage to O&R. These items were placed in B&P-1104 within minutes at Ergo RSPF's expense for the start of the shutdown. The items were not used and were left in place. 12/27/2011 at 10:00 AM, the turnround was complete, all items were returned to Ergo with the exception of the sit to stand desk. It was found by our installers on the gravel in parking lot, damaged beyond repair.	Equipment/Property Damage	(1) RSPF ERGO sit to stand desk was broken during removal from the S/S trailer. No one informed that the equipment was broken, that the equipment needed to be removed, lack of communication between shut down coordinator and ergo relief.
27974	Richmond CA - Refinery	12/15/2011 1:01:00 AM	Closed	Major Safety and P&ID Incident	Gas surge from V-1420 to relief overwhelmed the relief drum, causing a liquid surge from V-1420 to relief.	2011-12-15 Hopping of FCC Refractor Thru 0-130 OWS-5 and AO-2 were in the process of being done. P-1407(HNC head pump) in preparation for maintenance to perform a hot alignment. Thursday morning, in order to heat up P-1401, B side cut is bled back via pressure from HNC, feed surge drum V-1400 to low pressure separator V-1420. V-1420 was at 47.5 psig and AO-2 blocked in V-1420 line to 20 plant (4 inch line) at the boundary, then route this line to relief (3/4 inch line). By routing this line to relief at the boundary OWS-5 could control depressuring V-1420 with OWS-5 (downer of FGR 1050 & 6717) to relief while in constant communication with OWS-5 (downer of FGR 1050 & 6717). OWS-5 had both 1050 and 1060 loaded at 57% and increase feed as flow increased. OWS-2 valves flow started off at a critical rate before a surge. OWS-2 and OWS-5 overwhelmed the relief system and FCC Refractor tripped.	NL-Operational Process/Procedures - Safety Systems	(1) OWS too aggressive when depressuring system through into with a smaller ID.
28017	Richmond CA - Refinery	11/27/2011 12:00:00 AM	Closed	New Unit	V-1100 on start up of Crude		NL-Operational Process/Procedures - Safety Systems	
28026	Richmond CA - Refinery	11/25/2011 7:30:00 AM	Closed	Loss	Walked into scaffold tube that was sticking out from rack in scaffold yard	V-1103 was 168 blocked in to C-1102 during start up of the crude unit. EE turned to walk through racks of tubes in scaffold yard and immediately came in contact with tube at eye level. EE was wearing his safety glasses and hard hat. The EE came in contact with his right eye and tube. The impact caused small cut below his right eyebrow. EE was taken to the chervron clinic and then to off site provider. EE received stit- strips and is capable of returning to work full duty.	NL-Injury/Illness - Contractor Injury	(1) walking through yard not aware of surroundings
28028	Richmond Refinery	12/15/2011 7:30:00 AM	Closed	Loss	Walked into scaffold tube that was sticking out from rack in scaffold yard	EE turned to walk through racks of tubes in scaffold yard and immediately came in contact with tube at eye level. EE was wearing his safety glasses and hard hat. The EE came in contact with his right eye and tube. The impact caused small cut below his right eyebrow. EE was taken to the chervron clinic and then to off site provider. EE received stit- strips and is capable of returning to work full duty.	Injury/Illness	(1) walking through yard not aware of surroundings
28054	Richmond CA - Refinery	12/15/2011 12:00:00 PM	Closed	Loss	mechanic pinch his finger while moving an air operated hacksaw	Para toltalizer trip when responding to loss of K-1400. When operators responded to the loss of K-1400 they opened the compressor low point to remove and liquid, this low to relief was more than GFR mechanics had trouble this tripping the flow toltalizer, the VASBIE flame was seen. Operators quickly closed the valve to relief and the GFR system returned back to normal.	Regulatory Compliance	(1) HP separator level was not lowered to clear alarms due to the down stream low pressure separator was at low of pressure. (2) High of DP. This was due to warming up the feed pumps required operations to lower the low pressure separator pressure. This is done per normal unit start up procedures. The procedure does not cover the scenario of having that the unit up and reducing the low pressure separator. (1) Employee became complacent and placed his hands in the most comfortable, easiest position in order to lift the saw to reposition it.
28054	Richmond CA - Refinery	12/15/2011 12:00:00 PM	Closed	Loss	Lost LOTCO lock key	Unable to locate key for a LOTCO lock on R1410K. Lock must be removed in order to commit on plant equipment	NL-Operational Process/Procedures - Safety Systems	
28059	Richmond CA - Refinery	11/27/2011 12:00:00 AM	Closed	Loss	V-1199 had high levels during start up of the plant on multiple occasions	Since starting up, operation of 1 S/C has been sporadic and we've had no ability to maintain level in the stripper. An RH13 injection line that is supposed to be out of service was identified as being open into C-1110 overhead. Once identified and closed, the column returned to normal operation.	Operational Process/Procedures	(1) inadequate procedures
28059	Richmond CA - Refinery	11/27/2011 12:00:00 AM	Closed	Loss	V-1199 had high levels during start up of the plant on multiple occasions	On both startup of 4 Crude unit we experienced high levels in our relief drum V-1199	NL-Operational Process/Procedures - Safety Systems (SOS) Extended	
28059	Richmond CA - Refinery	11/27/2011 12:00:00 AM	Closed	Loss	V-1199 had high levels during start up of the plant on multiple occasions	On both startup of 4 Crude unit we experienced high levels in our relief drum V-1199	NL-Operational Process/Procedures - Safety Systems (SOS) Extended	

28100	CA - Refinery	12/00/00	Closed	Near Loss	Crude unit start up issues / Lessons learned	crude unit start up lessons learned from NLI	NL-Lessons Learned	1160 / F-1100 CEMAS legal requirement, (5) Valve left closed from V-1103 to C-1100 causing PED belows to leak
28116	Richmond, CA - Refinery	12/15/2011 11:00:00	Closed	Loss	T-1287 received backflow from JHT production via T-679 manifold	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. On 12/15 at 11:00 am 1-1287 in the Main Tank Field was set up to go direct to the JHT Plant (bypassing T-679 but using it's feed manifold). T-1287 then fed direct to the JHT until 12/16 at 16:00 when DSR's 2 side cut was switched from DHT to the JHT. This switch was too much flow for the JHT to feed and it took the path of least resistance to T-1287. On 12/16 at 18:00, T-1287 changed direction and began to back fill until it was questioned on 12/17 at 04:30 and actions taken to correct the backwards flow.	NL-Operational Process/Procedures - Plant Run Out/Blow Down	(1) Oils planning group requested alternate, physical route for T-1287 contents, (2) No communication that BAS temporary procedure called for blocking in of T-679, (3) Stop Work Authority was not used when lack of MOC process procedure was noticed and questioned
28118	Richmond, CA - Refinery	12/17/2011 8:30:00	Closed	Loss	Drilling start up R1410 bed #2 quench valve positioner stopped working	At approx 09:30 R1410 #2 bed quench valve stopped operating by auto control.	Operational Process/Procedures - Safety Systems	(1) 12/17/11 at 09:30 R1410 #2 bed quench valve stopped operating by auto control. Why - Valve would not respond to input. Why - Positioner was not working. Why - mechanical failure. Why - ???
28123	Richmond, CA - Refinery	12/17/2011 8:05:00	Closed	Near Loss	K-1400 Shutdown on V-1410 High level	V-1410 experienced a high level due to erratic LTs and K-1400 shutdown	NL-Operational Process/Procedures - Safety Systems	(1) High level in V-1410
28137	Richmond, CA - Refinery	12/17/2011 10:55:00	Closed	Near Loss	Dog in pressure on the #1 & #2 Castrol tanks (fresh H2O EBMUD)	At approx 10:55 hrs. on Sat. 12/17, Cogan received an alarm that the backup cooling water pump for TG-400 had started. At the same time, Cogan received a call from the north yard about the fresh water pressure being low. Utilities operators immediately started troubleshooting in the field. A call was made to the EBMUD emergency number. The dispatcher for EBMUD said that they were filling a reserve tank and pulling it hard on the #1 Castrol line. They immediately decreased the amount they were pulling of the line which in turn caused our pressure to come back into the normal range. Total elapsed time - 15 minutes. No abnormal effects occurred inside the refinery except for the startup of the backup pump for TG-400.	NL-Business Process - Abnormal Supply Occurrence	
28168	Richmond, CA - Refinery	12/16/2011 1:35:00	Closed	Near Loss	Green Card, Sulfur fumes blowing into weld bay area. Location: Hydro Weld Bay	Green Card, During sulfur loading, wind is blowing sulfur fumes into the Weld bay area. Mechanics are being exposed to levels of SO2 at or above the odor threshold.	NL-Injury/Illness - Employee Injury	
28170	Richmond, CA - Refinery	12/16/2011 11:20:00	Closed	Near Loss	Green Card, A yellow trashie tripped and almost fell. Location: Hershey St. Bldg 317	Green Card, At approx. 10:15am, a fellow trainee reported to me that he had tripped and almost fell over a cracked and raised part of the pavement directly outside of the front entrance to the classroom. At approx. 11:30am during lunch, I personally witnessed one of our instructor trip and almost fall over a raised metal tubing (something that had been sawed off close to and flush with the pavement) that was sliding out of the pavement and was part of the exact same raised and cracked pavement that was previously reported by my fellow trainee.	NL-Injury/Illness - Employee Injury	
28171	Richmond, CA - Refinery	12/16/2011 6:30:00	Closed	Near Loss	Green Card, Sulfur smell extremely bad. Location: Near Hydro Weld Bay/SRU	Green Card, Sulfur smell extremely bad in Hydro weld bay causing nausea and upset stomach.	NL-Injury/Illness - Employee Injury	
28176	Richmond, CA - Refinery	12/16/2011 10:30:00	Closed	Loss	QCO suffered a cut to head when lid of the Redman (on) on QCO.	QCO QCO suffered cut on forehead while QCO was performing a low temperature Brookfield Viscosity measurement. Lid of the freewheel did not lock in open position and fell on QCO.	NL-Injury/Illness	(1) Operator did not use existing safety equipment to secure lid.
28186	Richmond, CA - Refinery	12/17/2011 4:00:00	Closed	Loss	Mechanics spent all day trying to install P-1165 bearing bracket with a Diol.	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. Mechanics spent all day trying to install P-1165 bearing bracket with a Diol. According to one of the mechanics "We always use sieging with a mono-all to remove and install this pump." The bearing bracket gasket was the wrong size. The Diol had to be positioned in a tight area and clear head to be removed with the boom at fully extended to reach the pump. With the boom at full extension there was too much bounce to control the in of the bearing bracket.	Business Process	(1) Only 1 of the 3 gaskets were measured for install (if this had happened, would have used the incorrect size one for pump cover), (2) Outside Machine Shop did not have specific clearance dimension needed. Outside shop balanced the impeller improperly, (3) Tight clearances around equipment create more than usual pinch points
28199	Richmond, CA - Refinery	12/19/2011 8:00:00	Closed	Near Loss	Green Card, Broken 12" diameter cover. Location: Rear of #2 & #4 substation	Green Card, Possible slip, trip, fall hazard. Broken 12" diameter cover, is observation well cover. Appears to have been run over by heavy equipment. Near pole marked SS 25 in black paint background with SS 25 white letters and numbers. Location: Rear of #2 and #4 substation, 15' feet from base of Standard Oil No. 1 tap 1180v cut 2 pole.	NL-Lessons Learned	
28203	Richmond, CA - Refinery	12/12/2011 2:35:00	Closed	Near Loss	Green Card, Handrail and walkway is loose. Location: Long Wharf	Green Card, Walkway from load to walkway has handrail loose and the walkway is loose and wiggly. Handrail with life safety device is leaning out pretty good. Location: Long Wharf Causeway #5 Marker	NL-Injury/Illness - Contractor Injury	
28204	Richmond, CA - Refinery	12/12/2011 5:20:00	Closed	Near Loss	Green Card, Crosswalk needs to be repaired. Location: Xylene St	Green Card, Crosswalk on Xylene St. going across to Newton fence area needs to be repaired.	NL-Lessons Learned	
28205	Richmond, CA - Refinery	12/13/2011 2:15:00	Closed	Near Loss	Green Card, Three 2" pipe need to be supported. Location: Pipeway NW of Dresser-Rand office	Green Card, Three 2" pipe need to be supported. Pipeway is located NW of Dresser-Rand office.	NL-Lessons Learned	

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28654	Refinery	AM	Closed	Loss	Green Card, Motor for sample box leading diesel location, SP Hill T-2215	Hard to see due to the fading park on striping and very poor lighting.	Contractor injury	
28666	Refinery	12/13/2011 CA - 9:00:00 AM	Closed	Loss	Green Card, Motor for sample box leading diesel location, SP Hill T-2215		NL-Lessons Learned	(1) Operator entered an incorrect setpoint for the ID fan on the DCS which caused high furnace box pressure, resulting in the plant tripping to minimum fire. In the past he did not enter the correct setpoint and no loss occurred. (2) The system is designed in such a way that errors in entering a GOPV314 setpoint are unable to be detected before an incident occurs. (3) The plant shut down due to low fuel gas pressure because the Operators did not block in all of the min fire burners before re-setting the min fire trip. Crew teamwork during work does not effectively reinforce expectation of procedural usage.
28917	Refinery	12/30/2011 CA - 2:30:00 PM	Closed	Loss	H2A inadvertent trip due to F-305 min fire and fuel chop FSC trip	On December 30th CO2 operator was making adjustments to PC-318 and went to enter an output of 88%, and entered 8.0 instead. When PC-318 closed off to 8% the furnace tripped and went to min fire (per procedure) while attempting to reset the furnace high fuel gas / low steam flow completely dropped the furnace.	Environmental	(1) Operator entered an incorrect setpoint for the ID fan on the DCS which caused high furnace box pressure, resulting in the plant tripping to minimum fire. In the past he did not enter the correct setpoint and no loss occurred. (2) The system is designed in such a way that errors in entering a GOPV314 setpoint are unable to be detected before an incident occurs. (3) The plant shut down due to low fuel gas pressure because the Operators did not block in all of the min fire burners before re-setting the min fire trip. Crew teamwork during work does not effectively reinforce expectation of procedural usage.
28917	Refinery	12/30/2011 CA - 2:30:00 PM	Closed	Loss	H2A inadvertent trip due to F-305 min fire and fuel chop FSC trip	On December 30th CO2 operator was making adjustments to PC-318 and went to enter an output of 88%, and entered 8.0 instead. When PC-318 closed off to 8% the furnace tripped and went to min fire (per procedure) while attempting to reset the furnace high fuel gas / low steam flow completely dropped the furnace.	Equipment/Property Damage	(1) Operator entered an incorrect setpoint for the ID fan on the DCS which caused high furnace box pressure, resulting in the plant tripping to minimum fire. In the past he did not enter the correct setpoint and no loss occurred. (2) The system is designed in such a way that errors in entering a GOPV314 setpoint are unable to be detected before an incident occurs. (3) The plant shut down due to low fuel gas pressure because the Operators did not block in all of the min fire burners before re-setting the min fire trip. Crew teamwork during work does not effectively reinforce expectation of procedural usage.
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28935	Refinery	12/20/12 CA - 4:15:00 AM	Closed	Loss	DHT furnace briefly went to min fires due to operation of 16PC725.	At 04:15 the DHT furnace briefly went to min fire. Operation of PC 725 is suspected as being the contributing cause. (Control valve was inoperative and by-passed at the time. This leaves machine vulnerable to changes in refinery steam pressure.) normal forcing was quickly re-established and it was not necessary to isolate diesel product off tank.	NL-Operational Process/Procedures - Safety Systems	(1) do not need an investigation for this because leaking pilots on our 12 reformer furnaces are an accepted occurrence that we manage routinely.
28991	Refinery	12/20/12 CA - 10:00:00 AM	Closed	Loss	Pigtail leak F-305 B cell	Ops reported what appears to be pig tail leak on F-305 B cell. Upon inspection the leak was found to be a pig tail on F-305 B cell. Ops reported what appears to be pig tail leak on F-305 B cell. Upon inspection the leak was found to be a pig tail on F-305 B cell.	Equipment/Property Damage	(1) The Air Team did not identify and communicate the need for the pilot and purge meters to be calibrated annually. Full 5 Why document is available the investigation Journal book.
29016	Refinery	12/27/2011 CA - 12:00:00 AM	Closed	Loss	Potential non-compliance of GHG reporting requirements	On December 7, 2011 it came to the attention of the GHG Air Specialist that the refinery had not completed the annual calibrations of the three pilot and purge Natural Gas meters. This is a requirement of the newly implemented EPA and CARB GHG regulations.	NL-Regulatory Compliance - Non Compliance - Air	
29020	Refinery	11/27/2011 CA - 6:00:00 AM	Closed	Loss	Green Card, "Suggestion": Improve lighting conditions. Location: Tech Center	Green Card "SAFETY SUGGESTION" - Improve lighting conditions in front of the Tech Center.	NL-Lessons Learned	(1) Root cause can only be identified when the flange bolts, used on the 12 reformer furnaces, are inspected and replaced. The next opportunity to do so is 10/20/13 H2A Major. "Since the root cause is not known at this time, factors cannot be positively identified. Therefore, the Investigation Team has selected a possible factor, which may or may not be applicable, but seems likely at the time.
29032	Refinery	12/12/2011 CA - 12:00:00 AM	Closed	Loss	H2A E-305A VNB - Leak on Upstream Flange of PSV-316A (IX-3472)	While doing their first rounds on 12/12 dayshift, the AOS area operator discovered the upstream flange of PSV-316A (IX-3472) leaking (H2 tube side of E-305A H2A Train A-cell VNB outlet).	Equipment/Property Damage	
29033	Refinery	12/18/2011 CA - 5:40:00 AM	Closed	Loss	Green Card, Crosswalk needed to be painted. Location: Xylene B1	Green Card: A crosswalk on Xylene B1 by Newton needs to be painted. A lot of us are using the old crosswalk that has a lot of paint missing. We need someone to come out to see what needs to be done.	NL-Lessons Learned	
29036	Refinery	12/21/2011 CA - 5:00:00 AM	Closed	Loss	Green Card, Re-stripes needed entering Gate 91.	Green Card: The striping on the road entering Gate 91 is so faded that it's hard to stay on the right side of road.	NL-Lessons Learned	
	Refinery	12/22/2011 CA - 5:40:00 AM	Closed	Loss	Green Card, Re-striping needed entering Gate 91.	Green Card: At 91 Gate parking lot there is some parking spaces with faded		

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29068	Refinery	AM	Closed	Loss	Lines, Location: 91 Gate	out stripe lines. Hard to see when it's dark in the morning.	ML-Lessons Learned	
29069	Refinery	12/27/2011 8:15:00 AM	Closed	Loss	Green Card, 17 Pump Station handrail on stairs needs repair.	Green Card, 17 Pump Station handrail on stairs needs repair.	ML-Injury/Illness - Contractor injury	
29061	Refinery	12/27/2011 6:40:00 AM	Closed	Loss	Green Card, Crosswalk on Xylene St. needs to be repaired.	Green Card, A crosswalk on Xylene St. needs to be repainted because old paint on crosswalk is fading away.	ML-Lessons Learned	
29069	Refinery	12/27/2011 11:30:00 AM	Closed	Loss	HNC down due to leak on feed check valve	1. Incident Summary: The Heavy Neutral Cracker at RLOP was without feed for approximately 3.5 days while a leak on the high pressure feed check valve was dampened. 2. Background: As part of RLOP's 4Q2011 Major Turnaround the high pressure feed valve on the HNC was opened, inspected, cleaned, and reassembled. The Hydroprocessing Backflow Prevention Best Practice (attachment #1) recommends critical check valves are inspected and serviced during every Major Turnaround. As a result, all critical check valves (feed checks and wash water injection check valves) were inspected during the 2011 RLOP Major Turnaround. An issue and concern was raised during the 2011 HNC Process Hazards Analysis as to whether the HNC feed check valve had been inspected and serviced as part of the HNC feed check valve feed water style which was inspected by HCSO. The original inspection characteristics (attachment #2). It was contacted out to Bay Valve to open, inspect and repair and then bench tested at 4075 PSI (Passed). It was then put back into service at the HNC. No issues were reported with the check valve during the Recycle Compressor start up or during first exposure to hydrocarbons (closed-mid-flow). 3. Incident Description: A leak was found on the HNC Feed Check valve dripping 8 siddout at a rate of 1-2 drops per minute on 12/12 with Maintenance notified (attachment #3). The HNC then pulled feed due to loss of 8 siddout from the Crude unit on 12/13. Stop Work Authority (SWA) was used to keep feed out of the HNC after 8 siddout was restored due to the uncertainty over how the leak would behave when feed was reintroduced to the HNC. Contingency plan called for a damp to be designed, fabricated and reviewed by Design engineering and installed using a sealant. There was a need to inspect against severe limits for clamp torque. The original injection check valve was inspected and the clamp was tightened. The timeframe for when the clamp was created, reviewed and installed to installed in was from 12/14 to 12/16.	Business Process	(1) "FIVE WHY" One Page Report (Incident Number: weal, ID 17638 Business Unit BAS&USE Maint, Location T-3106 Facility Name Incident date 1/4/2012 Type of Process: N/A Type of Equipment: 1/2 ton truck Team Members: Greg Lowe Curtis Reynolds Ray Crane Incident Description: What: While parking at T-3106 driver moved truck so vac. truck would be in the work area. Driver pulled truck forward and made contact with the guard rail and was popping the tire. No other damage to the vehicle was noticed. Where in the process? BAS T-3106 When: 1/4/2012 How: Problem Statement: (What is the key issue that needs to be addressed?): Tire lost air. FIVE WHY'S 1. Why did "above" happen? Verification Vehicle tire made contact with guard rail. 2. Why did "1" happen? The mechanic didn't ask for help when moving the vehicle in a congested area. 3. Why did "2" happen? Mechanic moved the truck to make room for equipment access. 4. Why did "3" happen? 5. Why did "4" happen? ROOT CAUSE: The mechanic didn't ask for help when moving the vehicle in a congested area. LPS Factor: B. In past, did not follow procedures or acceptable practices and no incident occurred. 1- person chooses to not follow procedure, accepted practice because history of not following has not resulted in any consequences. "HY" One Page Report Incident Number: weal, ID 17638 Business Unit BAS&USE Maint, Location T-3106 Facility Name Incident date 1/4/2012 Type of Process: N/A Type of Equipment: 1/2 ton truck Team Members: Greg Lowe Curtis Reynolds Ray Crane Incident Description: What: While parking at T-3106 driver moved truck so vac. truck would be in the work area. Driver pulled truck forward and made contact with the guard rail and was popping the tire. No other damage to the vehicle was noticed. Where (location or
29076	Refinery	1/4/2012 1:00:00 PM	Closed	Loss	Front tire made contact with guard rail while parking the truck.	While parking at T-3106 driver moved truck so vac. truck would have access to the work area. Driver pulled truck forward and made contact with the guard rail and was popping the tire. No other damage to the vehicle was noticed.	Injury/Illness	(1) The Elbow Pain reported by the operator was determined to be a Non-Industrial Injury. This did not happen at work.
29089	Refinery	1/5/2012 1:45:00 AM	Closed	Loss	Operator reported pain in elbows when turning valves	Operator reported feeling intermittent pain in their elbows.	Injury/Illness	(1) Lack knowledge - Lack of understanding of event refinery operation. RLOP does not understand how the RLOP GRUB

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29105	Richmond, CA - Refinery	11/28/2011	8:30:00 AM	Closed	Near Loss	High H2S nephtha in T-1287 following RLOP GRU Startup	Technician notice that the vehicle wouldn't start so both called another tech to help push start the vehicle. Hand putting it didn't do the job. Tech thought there wasn't enough speed so he used another vehicle to push the vehicle that had the dead battery. This caused a mark on the fronts of both vehicles.	NL - Equipment/Property Damage - Equipment Damage	
28119	Richmond, CA - Refinery	11/4/2012	9:00:00 AM	Closed	Near Loss	Used wrong vehicle to push a disabled vehicle.		NL - Equipment/Property Damage - Equipment Damage	
28122	Richmond, CA - Refinery	11/4/2012	3:02:00 PM	Closed	Near Loss	Green Card, Step is 12"	Green Card, Eesside of Beeth No. 4 there is a step that is about a 12" drop; believed to have been discharged from the ship's loading water discharge port. The Ship's Captain and Engineer both denied soot was released from this vessel.	NL - Injury/Illness - Contractor Injury	
29140	Richmond, CA - Refinery	1/5/2012	2:00:00 PM	Closed	Near Loss	soot found in the bay around Moonlight Venture	Soot found in the water of berth #1 around the Moonlight Venture which is believed to have been discharged from the ship's loading water discharge port. The Ship's Captain and Engineer both denied soot was released from this vessel.	NL - Environmental - Spill - 3rd Party	
29203	Richmond, CA - Refinery	12/28/2011	6:00:00 AM	Closed	Near Loss	RLOP B-Crew worked without a qualified Head Operator	RLOP B-Crew worked without a qualified Head Operator on Day Shift 12-28-2011. Luckily there were no incidents or emergencies.	NL - Business Process - Business Process	
29203	Richmond, CA - Refinery	1/6/2012	3:02:00 PM	Closed	Near Loss	FCC flare localized tipped due to shutdown of K-150 flare gas compressor	While shutting down the FCC unit, K-150 (wet gas compressor) sudden pressure controller, 52PC-100A, opened and briefly vented excessive pressure to relief causing a trip of the FCC isolator.	NL - Business Process - Business Process	
29228	Richmond, CA - Refinery	1/6/2012	12:15:00 AM	Closed	Near Loss	rail car derailed on track bed	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. The unit operator switched the track derailed from open to close, he did it because he was preparing the #54 train for the rail car switch. He thought it was closed but it was open to start with. So he accidentally put the track derailed into the wrong position. Then the operator found the switch paper work signed to the scale house. Then the rail crew operator moved the rail car onto the track which derailed the rail car.	NL - Equipment/Property Damage - Equipment Damage	(1) Lighting to the indicating equipment was not functioning, no power for years. (2) Operator did not double check the derailed position. (3) Light bulbs for warning devices at railcars are not available (we are not trying working as that was addressed as a key factor). A side issue is that operations had no light bulbs for the working unit if they were to fail. This is a 24/7 operation and they need these supplies on hand. (4) Dim lighting in the railcar switch area.

29272	Richmond, CA - Refinery	1/6/2012 4:31:00 AM	Closed	Near Loss	LOTO Key 2037 missing	LOTO Key 2037 missing. Need CFD to open.	NL-Business Process - Business Process	(1) Operator reported first aid late because management did not communicate the need to report first aids immediately to STL.
29273	Richmond, CA - Refinery	1/6/2012 5:00:00 PM	Closed	Loss	Operator score shoulder and foot	O&R Operator reported score shoulder and foot to clinic. Late reporting from shutdown.	Injury/Illness	
29326	Richmond, CA - Refinery	1/16/2012 10:30:00 AM	Closed	Loss	Cut to index finger	A company electrician was inspecting and testing 115 volt extension cords in the process of stop. As part of the inspection, the electrician was rolling a cord and the cord was caught in the cord rolling machine. The cord was rolled up the cord with a knife. The electrician rolled a cord and reached into the machine to cut the wire with the knife in the open position. When he reached into the machine the blade hit the side rail which caused the knife to close on his index finger.	Injury/Illness	(1) the multi tool with a non locking blade is not a company issue tool, company issue knives have locking blades to prevent this issue
29330	Richmond, CA - Refinery	1/20/2012 12:00:00 AM	Closed	Near Loss	Year-end compliance requirements not completed by Dec. 31, 2011.	Several HES requirements, including audit action items, training, and Refinery instructions, were not completed by December 31, 2011, as certified in the Richmond Refinery's year-end HES compliance certification process. This process encompasses all uncompleted HES requirements, such as training, CAP items, PSSRA, audit action items, etc., including those certified to be completed before year-end.	NL-Regulatory Compliance - Non Compliance	(1) 1. Why were items that were certified in the Reg letter as going to be completed not completed? 2. Why had it occurred with no consequence? HES had responsibility for the reg letter development, but could not control folks who were responsible. 3. Why is the responsibility for the Reg Letter with HES? The current system has HES providing oversight for the development of the letter, pulling together the outstanding issues and tracking them to completion. 4. Why is the system set up the way it is? Did not realize that by setting it up this way, there would not be the level of commitment necessary to assure completion of action items in the time frame commitment. 5. Why was this not anticipated as a possible gap in the process or corrected once it was identified? There has not previously been the level of scrutiny for the accuracy of the report as there was in 2011. It was acceptable to have some commitments not meet the target. This is no longer the case, requiring the process to be revised to better manage the completion of all commitments in the Reg letter by the end of the year.
29330	Richmond, CA - Refinery	1/10/2012 8:00:00 AM	Closed	Loss	Employee was exposed to poison oak	Employee noticed signs of poison oak exposure on Tuesday evening, 1/10/12.	Injury/Illness	(1) Employee did not don't his gloves in a safe manner nor did he take extra precaution to protect himself from the possibility of poison oak in the area.
29336	Richmond, CA - Refinery	1/11/2012 8:50:00 AM	Closed	Loss	Finger laceration	Pipefitter was attempting to tape a weld blanket onto the end of a section of pipe to prepare the line for welding. The section of pipe was had one end supported atop a pipe support with a Teflon bumper beneath it to allow for shifting of the line on the support. According to reports, the end of the pipe that was to be taped was being supported with one hand by the fitter, while the other hand was to be used for taping. The line slipped on the Teflon bumper, causing the end of the pipe held in the pipefitter's hand to rotate, thus pinching his finger between the pipe and a rock.	Injury/Illness	(1) pinch point
29393	Richmond, CA - Refinery	1/11/2012 1:30:00 PM	Closed	Loss	EE was picking up a jack stand and the head slid down and pinched LH index finger.	EE was picking up a jack stand and the head slid down and pinched LH index finger.	Injury/Illness	(1) Why did the finger get pinched the finger got pinched because the jack stand fell off the fork lift. It fell off the fork lift because load was not tied down. It was not tied down because EE was in a hurry.
29396	Richmond, CA - Refinery	1/11/2012 3:30:00 PM	Closed	Near Loss	GHT E-1679 reboiler steam leak	GHT E-1679 reboiler steam leak on bottom flange of pot due to stirrup/shutdown heat cycle.	NL-Business Process - Business Process	(1) Covered legs were to long and cause a tripping hazard, which were not addressed by EE
29398	Richmond, CA - Refinery	1/11/2012 3:50:00 PM	Closed	Loss	EE tripped and fell and injured his shoulder	EE injured his shoulder when he was walking out of 5 Cal. He was walking over a platform when he tripped and fell. He slip his fall with his hand injuring his shoulder.	Injury/Illness	
29443	Richmond, CA - Refinery	1/12/2012 8:45:00 AM	Closed	Loss	Green Card - Timeo vehicle leaving B&S CH secure tools	Green Card - Contractor vehicle leaving B&S CH RM parking lot did not secure tools (saw, tape measures etc.) that could fall out when vehicle is in motion.	NL-Injury/Illness - Contractor Injury	
29443	Richmond, CA - Refinery	1/12/2012 8:45:00 AM	Closed	Loss	Green Card - Timeo vehicle leaving B&S CH secure tools	Green Card - Contractor vehicle leaving B&S CH RM parking lot did not secure tools (saw, tape measures etc.) that could fall out when vehicle is in motion.	NL-Transportation - Contractor	
29443	Richmond, CA - Refinery	1/12/2012 8:45:00 AM	Closed	Near Loss	Green Card - Timeo vehicle leaving B&S CH secure tools	Green Card - Contractor vehicle leaving B&S CH RM parking lot did not secure tools (saw, tape measures etc.) that could fall out when vehicle is in motion.	NL-Injury/Illness - Employee Injury	
29443	Richmond, CA - Refinery	1/12/2012 8:45:00 AM	Closed	Loss	Short on a scoldoid			

29482	CA - Refinery	3:00:00	Closed	Loss	caused small fire in cabinet	Equipment/Property Damage	(1) A solenoid was left in place after a vehicle retrofit had taken place that removed the reservoir the solenoid supplied
29490	Richmond, CA - Refinery	1/11/2012 4:27:00 AM	Closed	Near Loss	Start up of K-130 wet gas compressor resulted in a product off test for 6-8 hrs.	NL-Environmental - Release	
29542	Richmond, CA - Refinery	1/12/2012 10:40:00 AM	Closed	Loss	Small excursion, noted product off test for 6-8 hrs.	Business Process	(1) The ACU PCO was pulling more naphtha in order to minimize 80% point spec giveaway on the diesel. It is known that this action will increase the amount of sulfur sent to the DHT. The ACU PCO should therefore notify the DHT PCO so that they can proactively raise reactor CAT temperatures to meet the extra sulfur.
29547	Richmond, CA - Refinery	1/12/2012 4:00:00 PM	Closed	Near Loss	3" Edwards valve failure	NL- Equipment/Property Damage - Equipment Damage	(1) Edwards valve bursting stripped out.
29610	Richmond, CA - Refinery	1/12/2012 12:00:00 AM	Closed	Loss	Contractor employee exposed to poison oak.	Injury/Illness	(1) aware of there surroundings
29610	Richmond, CA - Refinery	1/12/2012 12:00:00 AM	Closed	Loss	Contractor employee exposed to poison oak.	NL-Injury/Illness - Contractor injury	(1) aware of there surroundings
29656	Richmond, CA - Refinery	1/16/2012 4:55:00 AM	Closed	Loss	HNH 220 routed to test	Operational Process/Procedures	(1) Contributing Factor: Procedure does not prompt console operator to verify tank drop until a few hours after change in feed routing. Doing this earlier could have reduced time that it took to discover the mis-alignment. (2) EE failed to recognize risk that he could be opening up wrong line or that he was doing this differently from how he had done it in the past. As a result, he didn't pause to get others involved to help. (3) Contributing Factor: Additional labeling of lines would have helped clear up EE confusion. (4) EE failed to recognize risk that he could be opening up wrong line or that he was doing this differently from how he had done it in the past. As a result, he didn't pause to get others involved to help.
29734	Richmond, CA - Refinery	1/17/2012 9:35:00 AM	Closed	Loss	Worker sustained contusion to finger while moving large tool box	Injury/Illness	(1) Inattention to task at hand by worker
29807	Richmond, CA - Refinery	1/19/2012 10:26:00 AM	Closed	Loss	While replacing a valve the mechanic got a few drops of diesel on his cheek & eye.	Injury/Illness	(1) Mechanic was not wearing a face shield while opening a flange. (2) Mechanic was not wearing a face shield while opening a flange.
29832	Richmond, CA - Refinery	1/19/2012 5:40:00 AM	Closed	Loss	Loss of electrical power to DER/NHT plant	Business Process	(1) The mechanic that installed new space heater wiring was not properly trained to understand the potential hazard he/she was creating by not routing the new space heater wiring where the old wiring was routed.
29837	Richmond, CA - Refinery	1/19/2012 8:30:00 AM	Closed	Near Loss	Fac three totalizer trip	NL-Lessons Learned	(1) No Communication of Water Wash On E-1050's and automatic level control of a high level in vessel V-1500 in RLOP combined to trip fac totalizer
29837	Richmond, CA - Refinery	1/19/2012 8:30:00 AM	Closed	Near Loss	Fac three totalizer trip	NL-Regulatory Compliance - Permit Exceedance	(1) No Communication of Water Wash On E-1050's and automatic level control of a high level in vessel V-1500 in RLOP combined to trip fac totalizer
29870	Richmond, CA - Refinery	10/17/2011 12:00:00 AM	Closed	Loss	Stack Gas source testing was performed outside required parameters for Consent Decree compliance	Regulatory Compliance	(1) See Journal Tab for full 5 Why documentation. The contractor did not follow the instructions for the sampling requirements for this source test provided by Chevron. (2) The QA/QC occurred too late in the year to discover the problem and set up another source test

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20916	Richmond, CA - Refinery	1/17/2012 12:00:00 AM	Closed	Loss	Registration payment for two X-Ray units was missed and late charges incurred.	QCDD had received paperwork for the payment of registration fees for two X-Ray Generating pieces of equipment purchased through them. QCDD had believed that the refinery Radiation Safety Officer was responsible for paying the fees, while the Radiation Safety Officer had thought payment would be completed by QCDD. A note regarding delinquent payments from the California Department of Public Health was received. Total additional fee is on the order of \$200.	Regulatory Compliance	was never sent out on time. Why: 2. Payment invoice was sent to QCDD who had believed the Radiation Safety Officer was responsible. Why: 3. There was a miscommunication where two separate parties with ownership in the payment believed the other was making the payment. 4. California Department of Public Health assigns the ownership for renewal payments to the purchasing party. Why: 4. No set agreement was in place for payment of the equipment.
20981	Richmond, CA - Refinery	1/19/2012 12:00:00 AM	Closed	Near Loss	Tank 3157 taken below low pump out.	RIOP made a production feed switch within their unit from T-3159 to T-3161/3162 and did not realize that an error was made during their switch. They started feeding T-3157 which was near low pump out. Tank movement alarms were received and acknowledge without investigating by the T & B Control Board Operator and T-3157 was taken below low pump out.	NL-Operational Process/Procedures - Safe Operating Limit (SOL) Exceeded	(1) Person chose not to follow procedure of accepted practice and does not hold themselves accountable for following
30012	Richmond, CA - Refinery	1/21/2012 7:00:00 AM	Closed	Near Loss	Oil in Impound Basin drained from T-3102 roof	Operator making the rounds found oil in T-3102 roof drain separator and impound basin.	NL-Environmental - Spill	(1) No thorough MOC review process when the tank was converted to fuel oil/gas of service.
30020	Richmond, CA - Refinery	1/22/2012 6:45:00 PM	Closed	Near Loss	Shutdown of K-10601/070 on a V-1051 High level. Tripped the FCC (distiller).	During a water wash of the E-1051/1052, the plugging broke free and filled up V-1051. The flare gas compressors shut down on a V-1051 High level.	NL-Environmental - Release	(1) Why did FCC trip that flare header? Because K-10601/070 shutdown. Why did K-10601/070 shutdown? Because V-1051 filled up with water. Why did V-1051 fill up with water? Because operations was water washing the E-1051/1052 due to plugging. Why was the E-1051/1052 plugging? Because C-820 in B plant has been unstable and excess flow from V-820 has been going back to V-801 causing NH3 to flash off into the relief system. NH3 will cause plugging in the overhead fins at Flare Gas Recovery. Additional finding - Operator was standing by FGR during the plugging, a wash of 1 hour resulted in no relief in the High OP. A short time later, a 2 hour wash was needed before the plugging finally broke free. At that point, V-1051 filled up so quickly, the high level shutdown as activated before the water could be shut off.
30028	Richmond, CA - Refinery	1/23/2012 12:01:00 AM	Closed	Near Loss	6-2 Feeder (450 v) circuit breaker trip.	Monthly routine duties incomplete for relief auto checklists.	NL-Equipment/Facility Damage - Equipment	(1) Management has made a business decision not to spend capital dollars to replace old power lines
30067	Richmond, CA - Refinery	12/31/2011 12:00:00 AM	Closed	Loss	Monthly routine duties incomplete for relief auto checklists.	The Monthly Relief Auto Checklists for the CFO Job routine duties on B Crew for Dec 2011 was incomplete at end of Dec 31st.	Business Process	(1) Incomplete (electronically) monthly duty expired without HIO or STL review and action taken to get the missing duties entered.
30092	Richmond, CA - Refinery	1/23/2012 5:00:00 PM	Closed	Loss	loss of UPS power to 17 pump station	During the last Uninterruptable Power Supply (UPS) inspection performed by Liebert Services, the UPS at 17 pump station was identified as needing the air filters on the unit replaced. Two Electric shop electricians were given a work order to replace the filters, the electricians put the UPS in Maintenance bypass to open the doors and replace the filters. Once the filters were in place they began placing the UPS to normal using the selector handle on the front panel, during that process the UPS start up the UPS failed to start up causing a loss of the RIE.	Operational Process/Procedures	(1) 1- Why were the facts associated with updating the level control valves on the downstream equipment not recognized? - Because, there was no discussion about the potential impacts of updating the level control valves on the downstream equipment during the project PHAY. 2- Why wasn't there a discussion about the potential impacts of updating the level control valves on the downstream equipment during the project PHAY - Because, utilizing the level control valves was not in the scope of the project PHA. It was the assumption of the PHA team that if any additional changes were made to the scope of project, the risks of those changes would have been assessed through the MOC

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30120	Richmond, CA - Refinery	12/6/2010 AM	Closed	Loss	capacity on V-1620. In this scenario LCV-16321 goes wide open when there is no liquid in V-1610. This leaves the entire capacity of the valve available for the process to flow. In this case, the capacity of PSV-371 on V-1620 is not large enough to pass the calculated load.	from the high pressure separator V-1610 to the low pressure separator V-1620 as recommended by the Hydro Processing Vulnerabilities list. In this scenario, the liquid level control valve, LV-321A/LV-322 (primary/standby), on high pressure separator V-1610 is fully open, resulting in loss of liquid level in the high pressure separator. Followed by high pressure vapor (H2) blow through to the low pressure separator. This scenario may result in an overpressure of the low pressure separator. The scenario may result in an overpressure of the low pressure separator. The scenario may result in an overpressure of the low pressure separator. When validating that the PSV was appropriately sized to protect the equipment in the event of vapor blow through, it was determined that PSV-371 was undersized for this case.	NL-Operational Process/Procedures - Pressure Relief Devices (PRD)	process. 3- Why weren't the risks of changes not assessed through the MOC process? - Because, relief system reviews did not take place for the MOC. 4- Why relief system reviews didn't take place? - Because it's at the discretion of the MOC Stage Two Reviewer to require a relief system review for a given MOC. In this case, no one was assigned to perform the relief system review. Why didn't the MOC Stage Two Reviewer assign someone to perform the relief system review? The engineering reviewer? a. Don't know, was not able to reach this individual. b. Assumptions. C. Did not recognize risks D. Lack of skill or knowledge regarding relief concerns
30120	Richmond, CA - Refinery	12/6/2010 AM	Closed	Loss	A 2011 PHA of the HNF Facility found the following issue in the High Pressure to Low Pressure Separator level valves: The potential for vapor blow through from V-1610 to V-1620 exceeding the PRD relief capacity on V-1620. In this scenario LCV-16321 goes wide open when there is no liquid in V-1610. This leaves the entire capacity of the valve available for the process to flow. In this case, the capacity of PSV-371 on V-1620 is not large enough to pass the calculated load.	During the 2011 HNF PHA Revalidation, an action item was assigned to perform a Safety Objective Analysis (SOA) on the vapor blow through case from the high pressure separator V-1610 to the low pressure separator V-1620 as recommended by the Hydro Processing Vulnerabilities list. In this scenario, the liquid level control valve, LV-321A/LV-322 (primary/standby), on high pressure separator V-1610 is fully open, resulting in loss of liquid level in the high pressure separator. Followed by high pressure vapor (H2) blow through to the low pressure separator. This scenario may result in an overpressure of the low pressure separator and downstream equipment. The primary safeguard in this vapor blow through scenario is pressure relief devices PSV-371 on the low pressure separator. When validating that the PSV was appropriately sized to protect the equipment in the event of vapor blow through, it was determined that PSV-371 was undersized for this case.	NL-Operational Process/Procedures - Safety Systems	(1) 1 - Why were the risks associated with uprating the level control valves on the downstream equipment not recognized? - Because, there was no discussion about the potential impacts of uprating the level control valves on the downstream equipment during the project PHA. 2- Why didn't the MOC process take place? - Because it's at the discretion of the MOC Stage Two Reviewer to require a relief system review for a given MOC. In this case, no one was assigned to perform the relief system review. Why didn't the MOC Stage Two Reviewer assign someone to perform the relief system review? The engineering reviewer? a. Don't know, was not able to reach this individual. b. Assumptions. C. Did not recognize risks D. Lack of skill or knowledge regarding relief concerns
30131	Richmond, CA - Refinery	1/18/2012 AM	Closed	Loss	Green Card. Heater in classroom doesn't work. Location: Hensley, Bldg 317	Green Card. The heater in classroom doesn't work. When overloading with floor heaters, we flip the breaker. Location: Hensley St, Bldg 317	NL-Lessons Learned	
30131	Richmond, CA - Refinery	1/18/2012 AM	Closed	Loss	Green Card. Heater in classroom doesn't work. Location: Hensley, Bldg 317	Green Card. The heater in classroom doesn't work. When overloading with floor heaters, we flip the breaker. Location: Hensley St, Bldg 317	NL-Lessons Learned	
30133	Richmond, CA - Refinery	1/18/2012 AM	Closed	Loss	Green Card. Poor lighting. Location: GMS Insulation Pad, Fabrication Room	Green Card. You need to feel your way in the dark and travel around obstacles in order to turn the lights on in room. The light switch is on the inside of another room. Location: GMS Insulation Pad, Fabrication Room	NL-Injury/Illness - Contractor Injury	
30133	Richmond, CA - Refinery	1/18/2012 AM	Closed	Loss	Green Card. Poor lighting. Location: GMS Insulation Pad, Fabrication Room	Green Card. You need to feel your way in the dark and travel around obstacles in order to turn the lights on in room. The light switch is on the inside of another room. Location: GMS Insulation Pad, Fabrication Room	NL-Lessons Learned	
30133	Richmond, CA - Refinery	1/18/2012 AM	Closed	Loss	Green Card. Poor lighting. Location: GMS Insulation Pad, Fabrication Room	Green Card. You need to feel your way in the dark and travel around obstacles in order to turn the lights on in room. The light switch is on the inside of another room. Location: GMS Insulation Pad, Fabrication Room	NL-Injury/Illness - Employee Injury	
30133	Richmond, CA - Refinery	1/18/2012 AM	Closed	Loss	Green Card. Poor lighting. Location: GMS Insulation Pad, Fabrication Room	Green Card. You need to feel your way in the dark and travel around obstacles in order to turn the lights on in room. The light switch is on the inside of another room. Location: GMS Insulation Pad, Fabrication Room	NL-Lessons Learned	
30168	Richmond, CA - Refinery	12/4/2012 AM	Closed	Loss	Green Card. Broken/corroded welds on deck, piping, Location: N. 150 Fin Fan Decks	Green Card. Several broken and corroded welds on deck, piping of E-130 in fan walkway and stairway bridge. Getting to the point of questionable attachment to the structure. Location: South Isomax Fin Fan Decks	NL-Injury/Illness - Employee Injury	
30228	Richmond, CA - Refinery	12/4/2012 AM	Closed	Loss	Green Card. Broken/corroded welds on deck, piping, Location: N. 150 Fin Fan Decks	Green Card. Several broken and corroded welds on deck, piping of E-130 in fan walkway and stairway bridge. Getting to the point of questionable attachment to the structure. Location: South Isomax Fin Fan Decks	NL-Lessons Learned	(1) Outside repair facility repaired pump with a new (manufactured) shaft with critical dimensions taken from the original shaft) however the impeller was not correctly located/positioned on the shaft while using a vertical sliding method

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30301	Richmond, CA - Refinery	12/17/2011 10:00:00	PM	Closed	Loss	P-1465 pump could not be installed after repairs were completed by outside repair shop.	The pump was repaired at a quickie repair shop. During the repair a new shaft was manufactured with critical dimensions taken from the original shaft however the impeller was not correctly located / positioned on the shaft while using a vertical stacking method and the excessive interference fit was not recognized by UNICO during assembly. The clearance should have been .030 and was assembled at approximately .5625. Subsequently during field installation the impeller hit the case.	Quality	and (the excessive interference fit was not recognized by UNICO during assembly). The clearance should have been .030 and was assembled at approximately .5625. Subsequently during field installation the impeller hit the case. Why did "above" happen? A deficiency in quality / inspection / assembly technique allowed the clearance to impeller to be incorrectly set and was not recognized until the pump was installed in the new.
30343	Richmond, CA - Refinery	1/25/2012 12:01:00	AM	Closed	Near Loss	F-1551 nearly exceeded the NOx emissions limit on 1/25/12	We had a near miss with our P-hr-40 ppm NOx emissions limit at F-1551 yesterday, 1/25. Our permit condition states not to exceed 40 ppm and we barely avoided an excess, Title V deviation, and environmental scorecard event	ML-Environmental - Release	(1) Alarm point was set too far below the actual limit to allow operators to optimize unit. Because the NOx alarm point was set so far below the actual limit, operators became accustomed to ignoring the alarm and it became meaningless since we were still below the real limit.
30354	Richmond, CA - Refinery	1/26/2012 3:15:00	PM	Closed	Near Loss	Firewater leak erosion of the side of the wall.	Vacuum truck driver had been used at multiple locations as needed to decontaminate T-3108 line. Line was filled with wash water and residual hydrocarbon. Truck was positioned next to a concrete wall on Standard Avenue and asked to be on stand by pending the result of a line break on the other side of the concrete wall. Initially, the Chevron Safety Operator did not think he needed to vacuum at this location. After achieving a line streak, the operator realized that he did need the vacuum and asked the crew to deploy the hose over the wall. At this point the vacuum truck driver failed to deploy the ground cable over the wall. There were no ground sources available on the steel site.	ML-Operational Process/Procedures - Safety Systems	(1) Why did vacuum truck operator fail to deploy his ground cable? He said he simply forgot. What caused him to forget? He stated that recent job events had distracted him, and that he was taken out of his normal routine by it. Why did the driver allow job events to irritate him to the point where he was taken out of his normal routine? Driver failed to recognize / refused to admit that he was being distracted in this manner. Why didn't the driver use pause work authority to get over the irritation so that he could focus on the work with a clear head? He stated that he was distracted by the fact that he was not putting forth the effort to clear the ground and putting the vacuum truck operator fail to deploy the ground cable? A ground source was not readily available in the area where the truck was parked. Why wasn't a ground source readily available where the truck was parked? Not all spots where vacuum trucks are needed have readily available ground sources. Why didn't the driver seek assistance at that point to secure a good ground source? He was asked to "standby" just in case, and was told vacuum may not even be needed. Why didn't he set up as if the job was going to happen anyway? Taking the time and putting forth the effort to do so was deemed unnecessary by the driver in hopes that the vacuum would not be needed.
30355	Richmond, CA - Refinery	1/17/2012 6:00:00	AM	Closed	Loss	Firewater leak erosion of railroad tracks	Underground firewater leak at NH3 Racks caused erosion of soil supporting track number 63.	ML-Business Process - Business Interruption	(1) Soil settlement overtime created significant strain on the buried pipe resulting in a cracked wall.
30356	Richmond, CA - Refinery	1/17/2012 6:00:00	AM	Closed	Loss	Firewater leak erosion of railroad tracks	Underground firewater leak at NH3 Racks caused erosion of soil supporting track number 63.	Equipment/Property Damage	(1) Soil settlement overtime created significant strain on the buried pipe resulting in a cracked wall.
30357	Richmond, CA - Refinery	1/17/2012 12:00:00	AM	Closed	Near Loss	Radio Dispatch Console intermittently failing. Emergency alarms & tone down minimized	Dispatch Radio Console not dispatching nor could it receive vital elements.	ML-Business Process - Business Interruption	(1) Failure to visually verify roof condition daily as a part of entry process. (2) Risk not identified, change of condition.
30400	Richmond, CA - Refinery	1/27/2012 12:00:00	PM	Closed	Near Loss	4" of wash water found on T-3156 roof	Chevron Tank Cleaning Supervisor discovered approximately 2" of standing water on T-3106 roof. Although roof is landed and cribbed, work has been shutdown and personnel removed from inside of tank until roof is drained.	ML-Business Process - Business Interruption	(1) The officer had stated that they had been given instructions on opening and closing a swinging gate, but had not received a demonstration of how to open and close a gate. The officer closed the swinging gate in a manner that they believed to be the safest. The manner in which the officer had been closing the gate had led to no incidents on prior occasions.
30422	Richmond, CA - Refinery	1/27/2012 11:36:00	AM	Closed	Loss	contract EE injured foot closing RR gate	Contract Security EE working 31 gate, stated she injured her left ankle closing RR gate	Injury/Illness	(1) CBO switches incorrect. Hand switch (HS-305C-A-TRN FG manual SD) Please see link to complete TapFoot Report.
30429	Richmond, CA - Refinery	1/26/2012 9:00:00	AM	Closed	Loss	H2 A-Train Fuel Gas Chopper was inadvertently closed while doing EBV checks causing the loss of H2 production from H2 A-Train.	While attempting to perform an EBV stroke check on MOV-380 (C-380, B-Train CO2 absorber) the OWS Operator turned the wrong OWS switch HS-305C (H2 A-Train Fuel Gas Shutdown) causing the loss of fuel gas to H2 A-Train thus losing 94MCF of H2 production.	Operational Process/Procedures	(1) CBO switches incorrect. Hand switch (HS-305C-A-TRN FG manual SD) Please see link to complete TapFoot Report.
30448	Richmond, CA - Refinery	1/26/2012 2:45:00	PM	Closed	Near Loss	Cygnus Voyager crew disconnected DCMA's without permission	The Cygnus Voyager completed it's crude discharge at approximately 1440hrs. The Berth #4 Operator defined the DCMA's (62 & 64) and went to the OWSA controllers for the disconnect from the vessel. Once there, the Berth #4 Operator noticed that both arms had already been disconnected by the ship's crew and boiler maker and plastic wrapped. This is a deviation from our practice of having the Operator being present at the controller in control of the arms and giving the verbal ok to disconnect from the vessel. This could have resulted in a spill, equipment damage or personnel injury.	ML-Business Process - Business Process	(1) 2nd Male didn't know there was a procedure.

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30448	Richmond, CA - Refinery	1/28/2012 2:45:00 PM	Closed	Near	Cygnus Voyager crew disconnected DCMA's without permission	The Cygnus Voyager completed its crude discharge at approximately 1410hrs. The Berth #4 Operator claimed the DCMA's #2 & #4 and went to the DCMA controllers for the disconnected from the vessel. Once there, the Berth #4 Operator noticed that both arms had already been disconnected by the ship's crew and boiler material and plastic wrapped. This is a deviation from our practice of having the Operator being present at the controller in control of the arms and giving the verbal ok to disconnect from the vessel. This could have resulted in a spill, equipment damage or personnel injury.	NL-Quality - Quality MS-Correction Action Request Log (CAR)	(1) 2nd Mate didn't know there was a procedure.
30449	Richmond, CA - Refinery	11/2/2011 2:00:00 AM	Closed	Loss	Tube failure of E-142A (Deethanizer Steam Reboiler)	Tube Failure of E-142A (Deethanizer Stripper Steam Reboiler)	Equipment/Property Damage	(1) Issue "Links" for TAPROOT documents E-142A design is poor and allows for too many conditions to exist in exchanger. (2) Design for TAPROOT documents E-142A design is poor and allows for too many conditions to exist in exchanger. (3) See "Links" for TAPROOT documents E-142A design is poor and allows for too many conditions to exist in exchanger. (4) See "Links" for TAPROOT documents) Plugging on the waste side of bundle
30530	Richmond, CA - Refinery	11/2/2012 10:30:00 AM	Closed	Near	Green Card, Eyewash station needs to pickup service. Location: B&S T33182	Green Card, Eyewash station (portable) needs to pickup service. Location: B&S T33182	NL-Lessons Learned	
30535	Richmond, CA - Refinery	11/2/2012 8:20:00 AM	Closed	Near	Green Card, Broken handrails on walkway. Location: B&S Standard/Rack	Green Card, Broken handrails on walkway. Location: B&S - Rack St./Standard Ave.	NL-Injury/Illness - Employee Injury	
30537	Richmond, CA - Refinery	11/2/2012 4:00:00 PM	Closed	Near	Green Card, A steam leak needs to be fixed. Location: FCC E-102B	Green Card, A steam leak at sample station on E-102B needs to be fixed. because a co-worker almost slipped and fell inside while working on E-102A. Steam test has been leaking for awhile so needs to be fixed before someone gets burned.	NL-Injury/Illness - Employee Injury	
30538	Richmond, CA - Refinery	11/5/2012 10:00:00 AM	Closed	Near	Green Card, A too board needs to be fixed. Location: NHT V-430	Green Card, A too board at top deck of V-430 needs to be fixed before someone slips and falls. Location: NHT V-430	NL-Injury/Illness - Contractor Injury	
30539	Richmond, CA - Refinery	11/6/2012 8:00:00 AM	Closed	Near	Green Card, Overhead condensate leak inside the box needs to be fixed. Location: NHT V-595	Green Card, Overhead condensate leak inside the box needs to be fixed. Cannot find where it's leaking from. Location: NHT V-595	NL-Lessons Learned	
30540	Richmond, CA - Refinery	11/6/2012 7:30:00 AM	Closed	Near	Green Card, A ladder needs to be fixed. Location: D&R - R410	Green Card, The ladder on R-410 on the bottom support are loose and needs to be fixed because when you walk up the ladder it shakes.	NL-Injury/Illness - Contractor Injury	
30542	Richmond, CA - Refinery	11/23/2012 8:00:00 AM	Closed	Near	Green Card, A contractor needs to be fixed with harness on. Location: RLOP	Green Card, Noticed a contractor on scaffold with harness on by fire. Location: RLOP	NL-Injury/Illness - Contractor Injury	
30551	Richmond, CA - Refinery	1/30/2012 10:00:00 AM	Closed	Near	Rags were found stuffed in the alarm system to silence the alarm.	It was found out today, January 30 that the alarm horn on the Honeywell DCS system for the Crude Board in Blending and Shipping was tampered with. Four (4) pieces of rags were found stuffed inside the panel board to silence the low, high and emergency audible alarms.	NL-Operational Process/Procedures - Safe Operating Limit (SOL) Exceeded	(1) Took the risk not authorized by the company
30550	Richmond, CA - Refinery	1/17/2012 8:20:00 AM	Closed	Near	Green Card, Galling clips are missing. Location: Utilities #2 Substation	Green Card, Galling clips are missing (have been for many years) throughout #2 Substation.	NL-Injury/Illness - Employee Injury	
30571	Richmond, CA - Refinery	11/25/2012 2:00:00 PM	Closed	Near	Green Card, 3/4" water line is not secure. Location: 810 Gals. PSM Trailer	Green Card, The 3/4" water line on Xylene St. side of the building is not secure. The Xylene St. needs to be repaired before it ruptures. Location: 810 Gals. Side of PSM Trailer, Xylene St.	NL-Lessons Learned	
30672	Richmond, CA - Refinery	12/12/2011 8:00:00 AM	Closed	Near	Asbestos Containing Material (ACM) discarded into trash	Contractor removed ACM from floor of RLOP Lab and discarded into trash dumpster.	NL-Lessons Learned	
30674	Richmond, CA - Refinery	1/21/2012 2:30:00 PM	Closed	Loss	Less of K-1420 LCI Building Cooling System	K-1420 tripped off line when the lysitoric cooling system fan started protection screen came loose and fell into the rolling fan blades. This resulted in portion of screen material penetrating one of the fines cooling tubes which caused a loss of cooling system pressure to the VSD resulting in a compressor trip scenario.	Equipment/Property Damage	(1) SYMA (stop work authority) used when working the motor replacement however, no SYMA used when installing different design screen
30674	Richmond, CA - Refinery	1/21/2012 2:30:00 PM	Closed	Loss	Less of K-1420 LCI Building Cooling System	K-1420 tripped off line when the lysitoric cooling system fan started protection screen came loose and fell into the rolling fan blades. This resulted in portion of screen material penetrating one of the fines cooling tubes which caused a loss of cooling system pressure to the VSD resulting in a compressor trip scenario.	Business Process	(1) SYMA (stop work authority) used when working the motor replacement however, no SYMA used when installing different design screen
30674	Richmond, CA - Refinery	1/21/2012 2:30:00 PM	Closed	Loss	Less of K-1420 LCI Building Cooling System	K-1420 tripped off line when the lysitoric cooling system fan started protection screen came loose and fell into the rolling fan blades. This resulted in portion of screen material penetrating one of the fines cooling tubes which caused a loss of cooling system pressure to the VSD resulting in a compressor trip scenario.	Business Process	(1) Process leak caused contractor personal monitor to alarm. (2) Additional FINE VWHY with focus on contractor EE not leaving immediately once HRS alarm sounded. (3) Why did contractor fail to immediately leave the area when alarm

30759	Richmond CA - Refinery	2/1/2012 AM	Closed	Near Contractor (personnel) H2S monitor alarm.	A contract EE and city of Richmond Inspector were completing an inspection of C-1910 in the RIOP. The purpose of the inspection was to ensure the integrity of Richmond permit which had been procured to authorize the replacement of C-1910. While ascending the column the contract EE's personal H2S monitor sounded, but the contractor failed to immediately leave the area. Additionally, the city inspector was not carrying his personal H2S monitor.	NL-Injury/Illness - Contractor injury	sounded? The alarm only sounded briefly and the odor initially sensed was no longer detectable via smell therefore the danger was thought to have diminished (2). Why didn't contractor leave even though the alarm only sounded briefly? felt obligated to complete task as many were waiting for the task to be completed. (3). Why in light of training didn't the contractor "Post experience and prior to the start of the work stop to smell the area? The contractor's H2S monitor was commonly smelled at low levels and this situation seemed to be the same. Based on past experience with H2S believed there was no danger.
30771	Richmond CA - Refinery	2/1/2012 AM	Closed	Wrong oil put in P-137 pump bearing.	Ops noticed oil in P-237 pump and bearing may be wrong.	NL-Lessons Learned	(1) Wrong oil in the oiler
30774	Richmond CA - Refinery	2/1/2012 12:00:00	Closed	PH Probe ordered on P0400113271 was signed for but could not be located	The PH Probe was delivered on 1/19/12 via FEDEX and signed by the storehouse, however, the package was not received in the SAP system. When the label called about it, it could not be located. Based on information on the shipping label, the storehouse checked the what area and the IBC shop, but the package could not be located.	Business Process	
30817	Richmond CA - Refinery	2/1/2012 PM	Closed	Green Card, Cumbuling station over. Rowmeter, Location: FCC NW of C-150A & E E162B	Green Card, Cumbuling station over Rowmeter 54FT150 in FCC Northwest of C-150A, also 54FT160 Eastside of E-162B	NL-Lessons Learned	
30833	Richmond CA - Refinery	2/2/2012 12:00:00	Closed	Employee experiencing severe side and back pain...Called CFD and the EART's arrived in a timely manner and subsequently transported the employee to clinic for further evaluation. EE was released by the clinic for non-occupational illness to be seen by personal physician. All notifications made as required.	Employee experiencing severe side and back pain...Called CFD and the EART's arrived in a timely manner and subsequently transported the employee to clinic for further evaluation. EE was released by the clinic for non-occupational illness to be seen by personal physician. All notifications made as required.	NL-Injury/Illness - Employee injury	
30859	Richmond CA - Refinery	2/2/2012 1:30:00	Closed	Near V-735 Steam safety lifted.	V-735 steam safety IX-7311 lifted.	NL-Operational Process/Procedures - Safety Systems	(1) V-735 pressure exceeded IX-7311 setpoint.
30871	Richmond CA - Refinery	1/25/2012 12:00:00	Closed	Near heat damage of microwave surge protector	In Cracking Division Office, found microwave surge protector that had been overheated. Probably overheated from being near heater. Cannot determine when incident happened. Area has recently been remodeled	NL-Equipment/Property Damage - Equipment Damage	
30991	Richmond CA - Refinery	2/2/2012 8:00:00	Closed	Loss Observed Oil on the roof of T-1504	Oil observed on T-1504 roof	Environmental	(1) There was no clear guideline with regards to the maximum flow rates of stops to T1504
31002	Richmond CA - Refinery	1/22/2012 12:00:00	Closed	Loss Weather delays on ANS ships lead to crude cuts.	The weather in the Alaska region caused the ANS crude ship deliveries to the Richmond Refinery to be delayed ~7 days. The P in had contingency room to accommodate some weather delays. However, at the same time, issues with T-1503 took a while of ANS inventory out of use. The combined effect of these two events led to the need to cut crude.	Business Process	(1) Weather > Uncontrollable
	Richmond	2/6/2012			At approximately 0825, 6 Feb 2012, PPS Officer was exiting Gate 121 from the bus. As she stepped out the gate, she was struck by the front of the bus. The gate closing unit was too late and the right front tender struck the gate and bent the bottom portion of the gate and put a slight		(1) Construction Gate on the Refinery Side of Gate 121 leading from RLYX to the bus. The gate was too late and the right front tender struck the gate and bent the bottom portion of the gate and put a slight dent in the tender of

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31013	CA - Refinery AM	8/26/00	Closed	Loss	sent to the border of the Wharf bus.	The Wharf bus. Both the Gate and the Wharf bus are still operational, the damage to both was cosmetic.	Equipment/Property Damage	Gate and the Wharf Bus to strike the closing gate. Wharf Bus did not stop in time to avoid an MVC.
31013	Richmond CA - Refinery AM	2/26/2012 8:25:00	Closed	Loss	At approximately 0825, 6 Feb 2012, PPS Officer was attempting to exit Gate 121 with the Wharf Bus, as she opened, but the other refinery side of the gate, a large piece of construction equipment accidentally drove over the top of the bus. The officer did not see the gate closing until it was too late and the right front fender struck the gate and bent the bottom portion of the gate and put a slight dent in the fender of the Wharf bus.	NT - Equipment/Property Damage - Equipment	(1) Construction Crane on the Refinery Side of Gate 121 heading from RLYW backed over the closing "Loop Detector" just as the Wharf Bus was "backing out" to leave the RLYW. This unexpected action caused the 121 Gate to prematurely close and the Wharf Bus to strike the closing gate. Wharf Bus did not stop in time to avoid an MVC.	
31015	Richmond CA - Refinery PM	2/26/2012 12:45:00	Closed	Loss	T-679 - lifting barrels to top of tank. Barrel clamp lost.	NT - Lessons Learned		
31022	Richmond CA - Refinery PM	2/26/2012 12:30:00	Closed	Loss	Unsecured Hudson sprayer fell off back of truck.	NT - Environmental - Spill - Solid Part		
31025	Richmond CA - Refinery AM	12/10/2011 12:00:00	Closed	Loss	3100K Toxicity and Refinery Effluent Water	Operational Process/procedures	(1) The root cause is still unknown and the investigation continues with multiple actions being worked	
31100	Richmond CA - Refinery PM	1/26/2012 3:57:00	Closed	Loss	Green Card. Many blind intersections. Location: Near Heading Plant North on Paycolle St.	NT - Lessons Learned		
31104	Richmond CA - Refinery PM	2/7/2012 11:00:00	Closed	Loss	EE 1st. AM. Splinter to ring finger on left hand.	Injury/Illness	(1) Work bench wood surface aging and need of upgrade, (2) EE failed to consider LPSA before using work surface as a desk and scripping up paper work.	
31104	Richmond CA - Refinery PM	2/7/2012 11:00:00	Closed	Loss	EE 1st. AM. Splinter to ring finger on left hand while filling out operator tags on a built in work table.	NT - Injury/Illness - Employee Injury	(1) Work bench wood surface aging and need of upgrade, (2) EE failed to consider LPSA before using work surface as a desk and scripping up paper work.	
31108	Richmond CA - Refinery AM	1/4/2012 12:00:00	Closed	Loss	Significant under account of 4Q11 Shutoffs	Business Process	(1) Spend associated with vendors who did not have a specific service order (SO) applied against a shutdown project were not accrued. Vendors associated with this category DRI under a refinery wide SO that is assigned to a general management cost center. Because no SO was assigned to the project, it would be difficult to identify a need for an accrual as there is no remaining commitment amount to indicate a potential liability. (2) Spend associated with service orders that were considered during the accrual process. But the final spend exceeded the 2011 accrual amount. At the time of accrual preparation, it was unknown whether or not a vendor needed to increase existing service order values. For example, if an accrual captured the total remaining value on an order, but that vendor did not communicate a need to increase their service order value, it is reasonable to assume the accrual captures our anticipated future liability. (3) Spend associated with SO's that were assigned to a shutdown project, but not considered during the accrual process. At the time of accrual preparation, it was unknown whether or not a vendor needed to increase existing service order values. Therefore, if a vendor's remaining commitment value at year end 2011 was zero, it would be hard to identify a potentially liability to accrue.	

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31298	Richmond, CA - Refinery	2/10/2012 6:45:00 AM	Closed	Loss	K-3 Air Compressor's main breaker 12,500 tripped due to a phase differential.	At 06:48 hrs., on 2/10/12 K-3 Air Compressor's main breaker tripped due to a phase differential causing K-3 to shut down. Initial inspection showed a damage to the breaker area. The breaker was isolated and is being inspected at this time.	Equipment/Property Damage	(1) Incident description At 06:48 hrs on 2/10/12 K-3 Air Compressor's main breaker tripped due to a phase differential causing K-3 to shut down. Initial inspection showed damage to switchgear above the breaker. The covers were removed and the bus was inspected. The inspection showed that the 12k-volt bus suffered a phase fault damaging the dielectric insulation material spreading the buses and shut down the air compressor. FIVE WHV'S 1, 12k-volt bus suffered a phase to phase 2. Why did 1 happen? The insulating material on the bus was broken and electrically arcing causing the voltage to rock back and forth between phases 3, 4, and 2. The space heaters were lost, allowing moisture to build up on the insulation materials, which caused the material to lose it's ability dielectrically over time. 4. Why did 3 happen? The space heaters were not checked to assure that they were working on a routine basis. 6. Why did 4 happen? The space heaters were not on routine duties to verify operation. Root Cause There is not a routine duty to verify the space heaters are working on the 12kv switchgear.
31299	Richmond, CA - Refinery	2/10/2012 12:00:00 AM	Closed	Loss	Level not calibrated. Potential loss of drawing down tank below low limit unknowingly, causing pumps and losing fresh acid feed to the Alky. This led to discovery of potential loss of being over-charged for sulfuric acid, the validation Chevron does on General Chemical's invoices was based on incoming flow meters.	The T-1821 level indicator was replaced right before startup following the 4Q10 Major Shutdown. The dp indicator was not calibrated and used a specific gravity of 1. Sulfuric acid has a specific gravity of 1.84, so we had about half the acid in the tank as the level indicator showed. If we had not needed more than our average daily use of acid, we could have either drawn down the tank below the low limit and caused pump damage or we could have run out of acid if there were a process upset and needed more. The mass balance done by PED to discover the incorrectly calibrated LI in the tank led to the discovery that the calculations that were used to validate General Chemical's bills for acid used flow meters that did not reflect what we were actually billed on. Our calculations used fresh acid flow, but we are mostly billed on spent acid flow. These errors could have had a discrepancy between our meters and their meters, causing Chevron to over-pay for sulfuric acid.	NL-Business Process - Business Process	
31299	Richmond, CA - Refinery	2/10/2012 12:00:00 AM	Closed	Loss	Level not calibrated. Potential loss of drawing down tank below low limit unknowingly, causing pumps and losing fresh acid feed to the Alky. This led to discovery of potential loss of being over-charged for sulfuric acid, the validation Chevron does on General Chemical's invoices was based on incoming flow meters.	The T-1821 level indicator was replaced right before startup following the 4Q10 Major Shutdown. The dp indicator was not calibrated and used a specific gravity of 1. Sulfuric acid has a specific gravity of 1.84, so we had about half the acid in the tank as the level indicator showed. If we had not needed more than our average daily use of acid, we could have either drawn down the tank below the low limit and caused pump damage or we could have run out of acid if there were a process upset and needed more. The mass balance done by PED to discover the incorrectly calibrated LI in the tank led to the discovery that the calculations that were used to validate General Chemical's bills for acid used flow meters that did not reflect what we were actually billed on. Our calculations used fresh acid flow, but we are mostly billed on spent acid flow. These errors could have had a discrepancy between our meters and their meters, causing Chevron to over-pay for sulfuric acid.	NL-Quality - Incurred Volume	
31298	Richmond, CA - Refinery	12/13/2011 12:00:00 AM	Closed	Near Loss	Level not calibrated. Potential loss of drawing down tank below low limit unknowingly, causing pumps and losing fresh acid feed to the Alky. This led to discovery of potential loss of being over-charged for sulfuric acid, the validation Chevron does on General Chemical's invoices was based on incoming flow meters.	The T-1821 level indicator was replaced right before startup following the 4Q10 Major Shutdown. The dp indicator was not calibrated and used a specific gravity of 1. Sulfuric acid has a specific gravity of 1.84, so we had about half the acid in the tank as the level indicator showed. If we had not needed more than our average daily use of acid, we could have either drawn down the tank below the low limit and caused pump damage or we could have run out of acid if there were a process upset and needed more. The mass balance done by PED to discover the incorrectly calibrated LI in the tank led to the discovery that the calculations that were used to validate General Chemical's bills for acid used flow meters that did not reflect what we were actually billed on. Our calculations used fresh acid flow, but we are mostly billed on spent acid flow. These errors could have had a discrepancy between our meters and their meters, causing Chevron to over-pay for sulfuric acid.	NL-Operational Procedures - Plant Run Out/Slow Down	(1) Training & Procedures (Communications and Lessons Learned): P-1651A Minor Shipping Delay. Outside vendor returned shipment of pump due to missing documents. Common practice to send only one set of documents with shipment. (2) SOP: Training & Procedures: Equipment arriving at Tally Room to be shipped out is not

31392	Richmond CA - Refinery	2/11/2012 AM	Closed	Near Loss	Missing MSDS and RMA	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. Hot shipment of pump and gear box sent to vendor. All information about material not sent to internal shop preparing the material for shipment. Return to Vendor Authorization number and MSDS attached to crate at refinery. Vendor refused shipment because aforementioned paperwork was missing when delivered.	NL-Transportation - Contractor	always ready for shipment, as per RI-304 requirements. Shipping Order is missing or not completed. Tags are missing making verification of cleaned and airfrid equipment impossible. Equipment in crates are sealed and Tally Room personnel has to open the crate to be able to verify proper equipment prior to shipping and that it is clean, airfrid, tagged, etc and proper documentation
31392	Richmond Refinery	2/14/2012 AM	Closed	Near Loss	Mixing MSDS and RMA	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. Hot shipment of pump and gear box sent to vendor. All information about material not sent to internal shop preparing the material for shipment. Return to Vendor Authorization number and MSDS attached to crate at refinery. Vendor refused shipment because aforementioned paperwork was missing when delivered.	NL-Business Process Business Process	(1) Training & Procedures (Communications and Lessons Learned): P-165/A Minor Shipping Delay. Outside vendor refused shipment of pump due to missing documents. Common practice to send only one set of documents with shipment. (2) SOS: Training & Procedures: * Equipment arriving at Tally Room to be shipped out is not always ready for shipment, as per RI-304 requirements. Shipping Order is missing or not completed. Tags are missing making verification of cleaned and airfrid equipment impossible. Equipment in crates are sealed and Tally Room personnel has to open the crate to be able to verify proper equipment prior to shipping and that it is clean, airfrid, tagged, etc and proper documentation
31438	Richmond CA - Refinery	2/14/2012 AM	Closed	Loss	H2 flow was started on the 167 line, displaced liquid to compressors at Isomax causing a SDO	H2 excess valve was found closed on 5Rhen. moves were made on 4 Rhen to establish flow down the 167 line from 5 Rhen. Liquid in the filled up knock-out pots at Isomax causing a High level SDO of the 0 compressors. Feed rates were cut at TRN, TMC, LNC, 4 Rhen, 5Rhen.	Operational Process/Procedures	(1) Employee did not recognize risk of re-activating flow on the H2 line.. (2) Procedure didn't cover this scenario. (3) No alarm to trigger ops of increased risk of liquid slugs to SISO.
31507	Richmond CA - Refinery	2/14/2012 AM	Closed	Near Loss	Flare Isolater tripped due to D&R and South Isomax plant upsets	Flare Isolater tripped due to D&R and South Isomax plant upsets (reference LI 31438)	NL-Business Process Business Process	
31527	Richmond CA - Refinery	2/14/2012 PM	Closed	Near Loss	Error in cell template effected May 2012 H2 Production Values in SOL-CHEV	The Hydrogen Plant Numbers for May 2012 in SOL-CHEV were significantly lower than the other months, and there was no major shutdown planned for May 2012. Why was the May 2012 H2 value lower? Because the SOL-CHEV plant had a lower H2 value. Why did the SOL-CHEV Plant have a lower H2 value? Because the stock balance transfer template had a lower value. Why did the stock balance transfer template have a lower value? Because the cell on the Utilization tab of the stock balance transfer template had an error in it. Why did the cell in the stock balance transfer template have an error in it? Because the previous year's template that was copied over for 2012 had the cell changed for a specific purpose, and there was no documentation that the cell formula was modified. Why was the error not caught during review? There was no process for reconciling the stock balance in SOL-CHEV vs. the actual stock balance, which the actual stock balance was correct. Why were the stock balances not reconciled vs. each other? Because acceptable communication of expectations regarding procedures or acceptable practices.	NL-Business Process Business Process	
31528	Richmond CA - Refinery	2/14/2012 AM	Closed	Near Loss	Green Card Slip on the algae growth. Location: S. Isomax	Green Card Slip on the algae growth on the north side of the road from Hydrogen St. to the S. Isomax Control House. Location: S. Isomax - Hydrogen St/Entrance to Control House	NL-Injury/Illness - Contractor Injury	
31552	Richmond CA - Refinery	2/15/2012 AM	Closed	Near Loss	Observed gap gauge pole sleeve was not secured in NOV if not corrected in 8 hours	Gauge pole sleeve of T-3220 was observed to have a gap exposing the product (GALVALUX) to the atmosphere. T-3220 is a regulated tank and tail gas is released. On May 9 Rule 5, we have 8 hours to minimize emissions and 4th hours to repair.	NL-Regulatory Compliance - Non Compliance - Air	(1) The design of the gauge pole sleeve assembly has very close tolerance and would hang up on the gauge pole. The design of the gauge pole sleeve assembly has very close tolerance and would hang up on the gauge pole. (2) Gauge pole sleeve design does not take into account the uneven section of the gauge pole.
31558	Richmond CA - Refinery	2/14/2012 AM	Closed	Near Loss	Leaking sample container of hydrocarbon discovered in trunk of vehicle	A leaking 8-oz glass sample jar containing unidentified hydrocarbon was discovered in the trunk of a vehicle when Chevron EE was investigating strong odor in passenger compartment. The vehicle was parked in the parking lot outside the 214 Main offices. The glass container was discovered in a small plastic bucket located in the trunk of the car, and not in the sample carrier provided specifically for transporting (not storing) sample containers. The near loss is defined as: 1. Personnel exposure to unknown hydrocarbon either by spill or inhalation. 2. Personnel location (R-113) location and position are in violation Hazard Code (R-113) location and position are associated with interfering chemical substances with no identifiable labeling.	NL-Lessons Learned	(1) Richmond PED team does not have a Procedure/JLA for proper handling and transportation of sample material. (2) Though it's unwritten, it's standard for PED to deliver lab samples directly to the lab upon receipt from the field. The engineer choose to delay the delivery due to other obligation, this resulted in the sample being left in the car. (1) 5 Why for P-681 Gearbox O-ring Issue: Shop Supervisor used SWA / PWA to take the pump out of service for suspicion of incorrect O-ring installed in the gearbox. Why did the above happen? 1. The shop mechanic related to the supervisor after observing the assembly of another similar gearbox in the shop and he noticed the O-ring installed was incorrect and believed that he had installed the same size O-ring in the P-681 gearbox. Why did the above happen? 2. The OEM drawing does not provide the actual size of O-ring that

31609	Richmond, CA - Refinery	1/31/2012 10:00:00 AM	Closed	Loss	Suspected incorrect O-ring was used in the P-391 gear box during assembly as the shop.	Suspected incorrect O-ring was used in the P-391 gear box during assembly as the shop.	Quality	was installed at this location and the mechanic assumed the O-ring in the kit he received and subsequently used was the correct one. Why did the above happen? 1. Because the O-ring fit in the groove so the mechanic assumed that it would provide the correct amount of O-ring compression and gasket crush expected for the gearbox lubrication port and case flange.
31628	Richmond, CA - Refinery	2/26/2011 12:00:00 AM	Closed	Loss	Extra work submitted by CUI via email and accepted not executed.	Maximo inspection recommendation 320106 was submitted to IMPACT via an email with an offer to complete the extra work form. IMPACT stated that they would add directly to the Turnaround data base and no need to complete the extra work form. The CUI group went out to remove the insulation from this system and install the aluminum mesh to prevent future CUI and found that the piping replacement had not been performed.	Not Operational Process/Procedure - Plant Run Outflow Down	(1) Incident Number LUE 31628 Business Unit Hydro Location SISCH2B-Train Facility Name Richmond Incident date 2/26/2011 Type of Process: CUI Piping Replacement Type of Equipment: Boiler System Blow down Team Members: Incident Description: What: Massed CUI piping replacement Where (location or where in the process): Hydro/SISCH2B-Train Boiler System Where: 1011 H2B-Train T/A How: Did not request Scope input to verify final scope that was entered into the TAY system. Problem Statement (What is the key issue): The CUI group was not instructed to remove the insulation during the 1011 H2B-Train T/A FIVE WHY'S 1. Why did "above" happen? Verification TAYW entered by Operations did not include correct CUI Recommendations 2. Why did "1" happen? CUI inspection was performed after Scope Freeze. Additional identified scope requested to be verified by Operations as SFD required work before submitting CUI as a TAYW. Three total recommendations were always listed as SFD work. Communication was performed by e-mail 3. Why did "2" happen? Operators entered TAYW into T/A database with two of three CUI Recommendations. The e-mail's covering the potential CUI repairs was unclear. Critical scope to the two questionable OTR CUI piping jobs and not required. Why did "3" happen? OTR CUI piping jobs and not required. Why did "3" happen? OTR CUI piping jobs and not required. A TAYW despite not being the Original Scope input. Additionally CUI group was not instructed to remove Recommendations entered in TAYW. 5. Why did "4" happen? IRL did not adequately communicate that the Scope Originator should input the final Scope. 6. Why did "5" happen? 7. Why did "6" happen? 8. Why did "7" happen? ROOT CAUSE: What was the Root Cause of your
31647	Richmond, CA - Refinery	2/16/2012 1:00:00 PM	Closed	Near Loss	Green Card. Evacuation method not done correctly. Location: Alty	Green Card. Plant was evacuated due to an upset of some sort. Crew evacuated to safety zone outside of unit and the Contract Supervisor did a head count to assure the crew was all accounted for. Another contractor was in a noisy area and never heard the evacuation alarm. No one from ops ever came out to confirm against sign-in sheet that everyone was accounted for. Also, there were no updates given, so the crew had no idea what was going on. All clear signal was given about 2.5 hrs later. Ops did not make any effort to contact the contractor who was in the noisy area to get him to safety. There is supposed to be a special method to contact people in very noisy areas in the event of an evacuation. Location: RILOP	Not Lessons Learned	(1) Why was contractor not notified of the plant evacuation? Loss of cooling water in RILOP caused overc. Outside operations swept the plant quickly while responding to the incident
31655	Richmond, CA - Refinery	2/16/2012 12:20:00 PM	Closed	Loss	Direct burial phone line damaged	While excavating a trench for the Homeland security project. A direct burial phone line was damaged. The crew was aware of the proximity of the cable. Digging was downgraded from a backhoe to a shovel and pick. A pick was used due to the rocky nature of the soil. As the laborer cleared the loose rock with a shovel he noticed he severed the line. Work stopped, the immediate supervisor was notified. Digging continued around the line to ensure the trench supervisor notified the proper personnel.	Equipment/Property Damage	(1) The method of use for the hand tool chosen was inadequate. (2) The method of use for the hand tool chosen was inadequate.

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31687	Richmond, CA Refinery	2/16/2012 4:00:00 AM	Closed	Near Loss	Packing Lot across from the Fire houses	Bigge crane and crew under the supervision of Chevron employees were using a crane to lift trailer boxes off the trailers using a crane and rigging. The riggers were up on the boxes connecting and disconnecting the rigging without fall protection.	NI-Operational Process/Procedures Safety Systems	<p>lying off in their trade. Fully common practice outside of our facility. 5. Why did '4r' happen? Should have taken the time to acquire a man lift. 6. Why did '5r' happen? Workers did not think it was a high risk job and did not take the time to get needed safety equipment. 7. Why did '6r' happen? 8. Why did '7r' happen? ROOT CAUSE: What was the Root Cause of your incident? Workers did not think it was a high risk job and did not take the time to get needed safety equipment. UPS Factor: "FIVE WHY" One Page Report Incident Number: 31687 Business Unit/Downstream Location: RTD Facility Name: Rich Ref incident date: 2/16/2012 Type of Processing: Type of Equipment: Sea van Team Members: Mike Klein Shawn Golden Dennis Lay Incident Description: What: Loading Sea-Van containers for transport Where location or where in the process: Catalysts parking lot When:</p> <p>(1) Why did FCC flare flow totalizer trip during 18 plant startup? During startup operations resulted to depressure C-1820 CH Per 18P-NP-2001 which has this caution: As steam is increased to E-1827, C-1820 pressure will increase. High pressure in C-1820 will reduce or stop flow from C-1810 due to loss of differential pressure. A high level in C-1810 will occur. Excessive venting of V-1820 can cause a flame and an environmental impact. Opening the manual vent caused excess venting and a flare totalizer trip</p> <p>(1) Root cause identified as inadequate communication during job preparation and performance by the contract laborer. The main problem is that material was pulled from the wrong tank. Why did this happen? Because the contract laborer supporting the job rigged bottom lifting connection to a tank other than the one intended for transfer and proceeded to direct the vacuum truck driver to empty the incorrect tank. Why did that happen? Because three more tanks left to be transferred on the job – one half emptied from the top and one completely emptied from the bottom. The laborer had not worked the job recently and was not intimately familiar with progress to date on material transfer activities which had been ongoing for several days. The tank intended for emptying was the bottom tank with bottom draw connection on the preceding evening. The laborer was not instructed on the morning meeting to proceed with a bottom draw material transfer but without reference to a specific tank number. Why did he proceed that way? Because communication from field to office on the radio later confirmed it was okay to proceed with a bottom draw transfer, but again the tank number was not specifically referenced during the communication. Why did that happen? Because the assumption was made on both sides that the tank being asked about was the (correct) tank with bottom draw rigged up the preceding evening, not the (incorrect) tank that the laborer had just rigged up. (2) A contributing root cause was identified for the vacuum truck driver, as doing the job according to procedures takes more time/effort. The problem is that the vacuum truck driver pulled from a tank without following the directions specified on this 3131 form for the job. Why did he do this? Because the vacuum truck driver was following direction given by the supporting contractor. Why did he do this? Because he was following his supervisor's ve</p>
31705	Richmond, CA Refinery	2/16/2012 9:00:00 AM	Closed	Near Loss	Hwy Portable Tank Material Transfer - Incorrect Tank	While transferring from portable tanks, material was transferred from an incorrect tank. An ongoing transfer was being performed from portable tanks in the HW Armes using vacuum trucks and contract laborers to assist with hose handling and tank level measurements. The 3131 form for the job clearly stated that all transfers (except one identified tank number) were to be from the top half only of the tanks. To do this, transfers were accomplished with hose dropped through an open top hatch/midway transfer than connecting hoses to the tank bottom. The hose connection, for the near loss in question, transfer was transferred from the bottom tank. The error could be traced since the contents of the entire tank were to be taken and was erroneously begun on a tank where only the top half was meant to be taken.	NI-Lessons Learned	<p>(1) Why #1 – Why were the RIs not signed and approved prior to the compliance officer A notification system exists for RIs that need to be updated. Exemptions were under-allowed the deadline – the RI had to be updated and available on the way to establish compliance. There was insufficient understanding of the process. January is a very busy month for Finance (closing books, accounting, etc.) and these were prioritized. There was communication – although December regarding the need to complete in January. Email updates were sent in mid January and Jan 25th, Jan 27th and 30th further communication finally got to action. Why # 2 – Insufficient appreciation of other priorities or not high enough priority or lack of commitment to get them done on time? The</p>

Late Approval of Refinery Instructions RI 802 (Casualty Loss) and 806 (Credit

31708	Richmond, CA - Refinery AM	2/1/2012 12:00:00	Closed	Near Loss	Late Approval of Refinery Instructions RI 802 (Casualty Loss) and 806 (Credit for Returning Items to Storehouse)	(for Returning Items to Storehouse). The RIs were not completed for revision on time and were out of date. The Refinery instructions were circulated for review in November and December and did not get completed in a timely manner for completion of the deadline. Expectations were unclear around the deadline – the RI had to be updated and available on the web to establish completeness. There was insufficient understanding of lead time to complete. January is a very busy month for Finance (closing books, accruals – etc.) is a higher priority. Multiple and competing priorities – although these were predictable and there was an opportunity to start the revision earlier. There was communication in early December regarding the need to complete in January. Email updates were sent in mid January and Jan 25th, Jan 27th and 30th. Further communication finally got to closure in early February.	NL-Regulatory Compliance - Non Company Policy	RIs were seldom used and had not been updated in a long time. In the past RI's not updated on time had been tolerated Why # 3 – has this been overlooked? No consequences or loss occurred? Or, the RI had not been reviewed and was out of date. Lack of expectations from RL TGM combined with lack of understanding around the Roles and Responsibilities for R update. Why # 5 – RL TGM lack of importance; RL T – did not provide sufficient lead time (understanding of other priorities) and put sufficient importance on the completion of the RI per the deadline. RL member responsible for the RI needs to commit enough time and importance on the timely review and approval of the RI.
31708	Richmond, CA - Refinery AM	2/1/2012 12:00:00	Closed	Near Loss	Late Approval of Refinery Instructions RI 802 (Casualty Loss) and 806 (Credit for Returning Items to Storehouse)	Late Approval of Refinery Instructions RI 802 (Casualty Loss) and 806 (Credit for Returning Items to Storehouse). The RIs were not completed for revision on time and were out of date. The Refinery instructions were circulated for review in November and December and did not get completed in a timely manner for completion of the deadline. Expectations were unclear around the deadline – the RI had to be updated and available on the web to establish completeness. There was insufficient understanding of lead time to complete. January is a very busy month for Finance (closing books, accruals – etc.) is a higher priority. Multiple and competing priorities – although these were predictable and there was an opportunity to start the revision earlier. There was communication in early December regarding the need to complete in January. Email updates were sent in mid January and Jan 25th, Jan 27th and 30th. Further communication finally got to closure in early February.	NL-Business Process Compliance - Business Processes	(1) K-1400 sour oil trap LCV stuck open, FINE WHAT? One Page Report Incident Number 31746 Business Unit Hydro Top Location RLOP Facility Name HNC Incident date 2-18-2012 Type of Process: H2 Type of Equipment: Seal off trap Team Members: Incident Description: What:k-1400 sour ole oil LCV valve hung open. Causing H2 to gas out to relief. HTS tripped the FCC and Alky tallizers. When a location or where in the process:k-1400 When: 2-18-2012 06:30 How:Sour oil trap LC stuck open. Problem Statement (What is the key issue that needs to be addressed?) Why did we go to flare? PNE WH# S1. Why did above happen? Verification happened? Cause:k-1400 test failed. 2. Why did it happen? Field controlled LCV's have a history of sticking open. 4. Why did "3" happen? LULV needs calibration to ensure valve closes faster and catches level. ROOT CAUSE: What was the Root Cause of your incident? LCV SIGHT OPEN . LP5 Factor: Faulty FRDs on pump.
31748	Richmond, CA - Refinery AM	2/18/2012 03:2:00	Closed	Near Loss	K-1400 sour oil trap stuck open and gassed out to relief, tripping FCC/ALKY tallizers.	K-1400 sour oil trap LC-908 stuck open and gassed out to relief. This caused a trip of the FCC and ALKY tallizers.	NL-Regulatory Compliance - Permit Exceedance	(1) SOE: Maintenance & Inspections: Facility indication on Stripper Water Effluent. (2) SOS: Tripping & Procedures: Interventions did not treat and info not on luminous. Unable to determine exact limit when valve was blocked in. (3) - Sidebear Issues: Maintenance & Inspections (Mechanical Integrity): Stripped Water Block Valve in remote. Had to reach location. Possible crack on pump p-1453.
31748	Richmond, CA - Refinery AM	2/18/2012 7:45:00	Closed	Near Loss	P-1453 shutdown on V-1453 low level.	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT-P-1453(RLOP wash water pump) shut down on V-1453 low level.	NL-Operational Process/Procedures - Safety Systems	
31816	Richmond, CA - Refinery PM	2/17/2012 3:35:00	Closed	Near Loss	Drilling Equipment filling way while drilling cystle. No one was injured or exposed. A small amount hydraulic fluid leaked through the equipment on to the ground.	At approximately 3:35 pm, Contractor Drill Rig had a hydraulic hose filling glove hydraulic fluid leaked through the equipment on to the ground.	NL-Environmental - Spill - 3rd Party	I was briefly asked to assist in setting up expedited freight for the V-430 vessel from Sand Springs, OK to the Richmond Refinery. I contacted CEVA (preferred carrier) to coordinate the delivery, and they quoted a range of prices to cover the permits & delivery. This was a High Visibility Project being

31833	Richmond, CA - Refinery	10/20/2011 12:00:00 AM	Closed	Near V-430 Transportation for Loss DSR Shutdown	<p>Followed by members of the Refinery Leadership Team. After some initial Emails & phone calls with CEVA, Craig Dillon sent me an email stating that he had a lack of confidence in CEVA to acquire the required permits and do the job timely. I had not had any history with CEVA on a job of this nature, so I contacted Capp Logistics to see if they could assist us in getting the V-430 shipped here by the 10/17/11, firm delivery date. I had a good history working with Capp on other large, expedited shipments. Capp responded quickly & confidently that they handle this job. After several Conference Calls, Craig & Mike Fitzgerald preferred to go with Capp Logistics, due to their quick response, better history of these large jobs, & a better quoted price. I notified CEVA (Mike Hamilton) that we were no longer requiring their services as of 9/17/11, due to the fact that it was taking them too long to obtain the permits from local State officials. Capp performed this process with confidence & the economy we required. We continued to receive daily updates from Capp on the progress & risk stratification. Their rep was on top of this situation, and gave the Business Process Coordinator (BPC) daily updates. If delivery date was missed, BPC would not have been able to install the vessel during the Shutdown window. They would have had to wait to install the unit during another work stoppage, possibly costing \$500K in LPO, each day. The V-430 was picked up on schedule on 10/4/11, and we received daily email reports on the delivery status of the vessel as it traveled to Richmond in 14 days. There were exceptions as to when the vessel could travel in certain states due to the size & weight of the load. Capp was in contact with the driver, and kept us in the loop the entire route. We feel that had we not switched from CEVA to Capp Logistics, we the unit would not have arrived on time to make the installation base price. They also quoted us a higher price to ship the unit in two pieces.</p> <p>Vessel was finally asked to assist in getting up expedited freight for the V-430 (preferred carrier) to coordinate the delivery, and they quoted a range of prices to cover the permits & delivery. This was a High Visibility Project being followed by members of the Refinery Leadership Team. After some initial Emails & phone calls with CEVA, Craig Dillon sent me an email stating that he had a lack of confidence in CEVA to acquire the required permits and do the job timely. I had not had any history with CEVA on a job of this nature, so I contacted Capp Logistics to see if they could assist us in getting the V-430 shipped here by the 10/17/11, firm delivery date. I had a good history working with Capp on other large, expedited shipments. Capp responded quickly & confidently that they handle this job. After several Conference Calls, Craig & Mike Fitzgerald preferred to go with Capp Logistics, due to their quick response, better history of these large jobs, & a better quoted price. I notified CEVA (Mike Hamilton) that we were no longer requiring their services as of 9/17/11, due to the fact that it was taking them too long to obtain the permits from local State officials. Capp performed this process with confidence & the economy we required. We continued to receive daily updates from Capp on the progress & risk stratification. Their rep was on top of this situation, and gave the Business Process Coordinator (BPC) daily updates. If delivery date was missed, BPC would not have been able to install the vessel during the Shutdown window. They would have had to wait to install the unit during another work stoppage, possibly costing \$500K in LPO, each day. The V-430 was picked up on schedule on 10/4/11, and we received daily email reports on the delivery status of the vessel as it traveled to Richmond in 14 days. There were exceptions as to when the vessel could travel in certain states due to the size & weight of the load. Capp was in contact with the driver, and kept us in the loop the entire route. We feel that had we not switched from CEVA to Capp Logistics, we the unit would not have arrived on time to make the installation base price. They also quoted us a higher price to ship the unit in two pieces.</p>	NL - Business Process - Abnormal Freight	
31833	Richmond, CA - Refinery	10/20/2011 12:00:00 AM	Closed	Near V-430 Transportation for Loss DSR Shutdown	<p>Utilities loss of K-3 air compressor due to a High-High HRA air temperature on 9/5/13006 of >145F on K-3's VANTAGE controller trip protection system. D-220/12 @ 12:15 PM the Distribution Operator (DO) was notified of a K-3's Common alarm "via Cogen CBD (Board Operator) Once at K-3 the DO noticed the "Primary Drain failure" alarm & reset the drain alarm. After further inspection the lube oil temp alarm was noticed at the VANTAGE panel. The low lube oil temp alarm setting is >130F. On 9/5/13006, the local field TI indicated a lower reading of 6-7F LOWER. After calling the Distribution Head Operator (DHO) out for assistance after a lube oil system inspection was made, a cooling water supply flow move was made to attempt to decrease the lube oil temperature. The lube oil temperature kept increasing to the point of the Shutdown protection setting of >145F on the VANTAGE controller @ 12:30 PM. The Cogen Head Operator (CHO) immediately called South ISO for K-2800 to be put in PS & FCC to start their portable A/C. K-2800 was Online in minutes to provide yard & instrument air for the yard with no major loss of Yard or Instrument Air.</p>	NL - Business Process - Shutdown Interruption	(1) K-3 High Lube Oil temperature SDO protection on 9/5/13006 >145F via VANTAGE controller

32091	Refinery	AM	Closed	Loss	Failure	gases on at boiling under 400 PSIG. #1 priority VMA231707	Damage	
32093	Richmond CA - Refinery	2/22/2012 4:30:00 PM	Closed	Near Loss	Fork lift struck entry gate in the NSU while moving a fork lift	An operator had a task of moving a forklift from the storage lot to the NSRU. The operator opened the gate. They drove the forklift from the NSRU to the storage lot to pick up the forklift. Once they picked up the forklift and started back into the NSRU they did not notice that the gate had partially closed. They struck the gate with the forklift. There was no damage to the forklift. There was minor damage to the gate. A work request was issued for the gate repair.	NL- Equipment/Property Damage - Equipment Damage	(1) Lack of fork lift expertise
32095	Richmond CA - Refinery	2/23/2012 10:00:00 AM	Closed	Near Loss	Monitors 0515-0521-0522-0523 have broken lines that attach to 55 gal drum concentrator. Some lines are sun baked and brittle.	Monitors 0515-0521-0522-0523 have broken lines that attach to 55 gal drum concentrator. Some lines are sun baked and brittle.	NL- Equipment/Property Damage - Equipment Damage	
32095	Richmond CA - Refinery	2/23/2012 10:00:00 AM	Closed	Near Loss	Monitors 0515-0521-0522-0523 have broken lines that attach to 55 gal drum concentrator. Some lines are sun baked and brittle.	Monitors 0515-0521-0522-0523 have broken lines that attach to 55 gal drum concentrator. Some lines are sun baked and brittle.	NL-Operational Process/Procedures - Safety Systems	
32142	Richmond CA - Refinery	8/22/2011 12:00:00 AM	Closed	Near Loss	Delayed Procurement Review Of One-Time	Initial email sent by requester to Procurement in April 2011 to discuss options for new one-time. Requestor was sent requirements to submit one-time request. 08/22/2011 - Requestor submits request for one-time. CS review was submitted and progressed to Category Management. Decision shared, but email cannot be found and was not applied. Buyer managing One-Time transitions to a new job and One-Time is handed off to a different Buyer. New Buyer goes out on vacation and transitions to a 3rd Buyer. 12/29/2011 - CS review re-initiated by 3rd Buyer. CS quickly pointed to earlier review and advised to push further. Several conversations and emails were had, but the final determination email was not rediscussed. 02/21/12 - Email sent to Category Manager who participated in review, requesting further support. 02/23/2012 - Final determination was made to proceed without Category Manager documentation with the understanding that the earlier review had resulted in an approval. 02/24/2012 - Updated vendor estimate requested, prequalification request submitted, and change code requested from new requestor.	NL-Business Process - Business Interruption	
32142	Richmond CA - Refinery	8/22/2011 12:00:00 AM	Closed	Near Loss	Delayed Procurement Review Of One-Time	Initial email sent by requester to Procurement in April 2011 to discuss options for new one-time. Requestor was sent requirements to submit one-time request. 08/22/2011 - Requestor submits request for one-time. CS review was submitted and progressed to Category Management. Decision shared, but email cannot be found and was not applied. Buyer managing One-Time transitions to a new job and One-Time is handed off to a different Buyer. New Buyer goes out on vacation and transitions to a 3rd Buyer. 12/29/2011 - CS review re-initiated by 3rd Buyer. CS quickly pointed to earlier review and advised to push further. Several conversations and emails were had, but the final determination email was not rediscussed. 02/21/12 - Email sent to Category Manager who participated in review, requesting further support. 02/23/2012 - Final determination was made to proceed without Category Manager documentation with the understanding that the earlier review had resulted in an approval. 02/24/2012 - Updated vendor estimate requested, prequalification request submitted, and change code requested from new requestor.	NL-Business Process - Business Interruption	
32166	Richmond CA - Refinery	2/24/2012 12:33:00 AM	Closed	Near Loss	T-957 exceeded safe oil height	T-957 was filled on 2/21/12. On the evening of 2/22/12 additional bits were moved into the tank to satisfy a vessel load (68M onboard the Cedar Galaxy) on 2/27/12. Due to heat of the day on 2/24/12 the material in T-957 exceeded Safe Oil Height due to thermal expansion. This overabundance did not result in any loss of containment or equipment damage.	NL-Operational Process/Procedures - Safe Operating Limit (SOL) Exceeded	(1) No guideline on maximum fill level to prevent Safe Oil Height overabundance due thermal expansion.
32276	Richmond CA - Refinery	1/17/2012 12:00:00 AM	Closed	Near Loss	2011 C&A&P Audit finding A11-20 not completed by due date	Consider consolidating ventilation system information in the EOM to include chemical sensors and sheller in place information and links to applicable drawings.	NL-Business Process - Business Process	(1) Problem Statement (PS) is the key issue that needs to be addressed? Overdue 2011 C&A&P Audit finding A11-20, scope of the general plan and action item plan of the audit finding when agreeing to the due date. 2. Why did "1" happen? Did not involve the right people when making the decision regarding the due date. 3. Why did "2" happen? Thought that ventilation system drawings were readily available as they are Process Safety Information
32282	Richmond CA - Refinery	2/23/2012 12:00:00 AM	Closed	Near Loss	2011 C&A&P Audit finding A16-01 not completed by due date.	2011 C&A&P Audit finding A16-01 not completed by due date.	NL-Business Process - Business Process	
32283	Richmond CA - Refinery	2/21/2012 2:00:00 PM	Closed	Near Loss	Expired food purchased in vending machine	Employee bought corn nuts from the vending machine at the Cogan Control Room vending machine, #17. He then put a handful in his mouth and noticed a moldy stale look in the bag. After "turner" review of the package he noticed it had been expired for 2 years.	NL-Injury/Illness - Employee Injury	

32285	Richmond, CA - Refinery	2/25/2012 11:10:00 AM	Closed	Loss	Loss of seal on P-1831A, P-1831 in shop for repair.	SEE ATTACHED LINK FOR COMPLETE TOP REPORT - P-1831A, C-1831 water circulation pump, seal failed.	Equipment/Property Damage	(1) 1. Why did the "above" happen? Seal faces experienced excessive dry run vaporization conditions. (This is where seal wear occurs) (2) Why did the seal faces and ureals? 2. Why did the "above" happen? Seal faces experienced excessive dry run vaporization if seal flush is turned off. Seal flush adds too much water for the process to accept. Thus seal flush is minimized or shut off to the point that the seal faces run dry, and if process vaporizes when the flush is off, the faces are damaged. This occurs frequently during 18 plant startups and plant upsets. This is a design issue. 3. Why did the "above" happen? Sometimes in the past, a Plan 32 double seal design was replaced with a Plan 32 single seal design. The Plan 32 design adds no water to the process and the seal faces are kept liquid-lubricated independently from the process. (Plan 32 uses a pressurized buffer fluid - water between the seal faces. Nitrogen pressure keeps the buffer fluid pressure > process pressure. 4. Why did the seal wear happen? There is no documentation as to why the seals were identified from double to single. It may have been seal reliability. After 22 years, we can speculate but cannot confirm reasons. 5. Why did the "above" happen? Speculation only: Possibly lack of knowledge that single seals would result in potentially worse reliability and operability. (2) SOS. Design & Engineering: Seal Design was changed from double to single face. (3) Sidebar issues: SOS: Design & Engineering: P-1831A and P-1831 experience cavitation during start-ups.
32327	Richmond, CA - Refinery	2/27/2012 1:00:00 PM	Closed	Near Loss	Green Card Repair hole, Location: Afrain South Isomax, 5' N of E-333	Location: Afrain South Isomax, 5' North of E-333	NL-Lessons Learned	(1) Fuel gas control valve closes shut due to Feedforward control system logic related to going to min flow and not returning to normal. (2) Fuel gas control valve failed to maintain minimum pressure (including PCV-072). (3) Pig tail past normal life expectancy of 20 years. (4) 20 Plant not shut down under downstream K-1800 upset conditions. (5) Compressor suction pressure dropped from 215 lbs to 90 lbs. In the past, the drop was not as severe or as fast.
32333	Richmond, CA - Refinery	2/27/2012 2:30:00 PM	Closed	Loss	F-305 bhp during pressure survey	A pressure survey was being conducted on the feed gas valves on F-305. When the feed gas flow went to 0 MMSCFD, the fuel gas flow controller closed due to being on ratio control.	Operational Process/Procedures	(1) Why did V-1810 PSV HNP V-1810 PSV LU#1601 Lined 100PSI lower than its setpoint. Why did LU#1601 relief valve K-100PSI lower than its setpoint. LU#1601 lined 100PSI lower than its setpoint due to error in setting psv or physical damage.
32353	Richmond, CA - Refinery	2/27/2012 6:40:00 PM	Closed	Loss	V-1810 psv relieved early causing flaring	At approximately 18:38 (2/27/2012) Flow from the RLOP relief header overcame vented flare gas recovery and popped the seal on the FCC flare causing visible flaring. Duration of the event was approx 20 minutes. Flare sample automatically taken after 15 minutes.) outside operations and CO-6 began searching for the cause at the onset of the event with nothing over in sight. Outside operations while searching, found the PSV on HNF High pressure separator was lifting and switched PSVs. Normally one is in service and the other is isolated for immediate service when needed. With the loss of a train earlier in the day the bleed was blocked in. In the HNF this started to cause the HNF system pressure to swing. It was running at 2550PSI. At 2550 the PSV-311(LU1600) lined to relief, it's set to lift at 2715PSI. The CO also cracked open the bleed to stabilize the system pressure. This event was Not an RQ Event as verified by HES	Environmental	(1) Why did V-1810 PSV HNP V-1810 PSV LU#1601 Lined 100PSI lower than its setpoint. Why did LU#1601 relief valve K-100PSI lower than its setpoint. LU#1601 lined 100PSI lower than its setpoint due to error in setting psv or physical damage.
32353	Richmond, CA - Refinery	2/27/2012 6:40:00 PM	Closed	Loss	V-1810 psv relieved early causing flaring	At approximately 18:38 (2/27/2012) Flow from the RLOP relief header overcame vented flare gas recovery and popped the seal on the FCC flare causing visible flaring. Duration of the event was approx 20 minutes. Flare sample automatically taken after 15 minutes.) outside operations and CO-6 began searching for the cause at the onset of the event with nothing over in sight. Outside operations while searching, found the PSV on HNF High pressure separator was lifting and switched PSVs. Normally one is in service and the other is isolated for immediate service when needed. With the loss of a train earlier in the day the bleed was blocked in. In the HNF this started to cause the HNF system pressure to swing. It was running at 2550PSI. At 2550 the PSV-311(LU1600) lined to relief, it's set to lift at 2715PSI. The CO also cracked open the bleed to stabilize the system pressure. This event was Not an RQ Event as verified by HES	Operational Process/Procedures	(1) Why did V-1810 PSV HNP V-1810 PSV LU#1601 Lined 100PSI lower than its setpoint. Why did LU#1601 relief valve K-100PSI lower than its setpoint. LU#1601 lined 100PSI lower than its setpoint due to error in setting psv or physical damage.
Richmond, 2/27/2012					Flaring occurred At about 21:00 on 2/27/2012 both the RLOP and FCC flares due to K-1800 in RLOP surging. Sampling requirements occurred in both flares and HES confirmed an RQ for SO2 on the RLOP flare around 8:00pm, thus triggering the Consent Decree and BAAQMD reportable flaring incident criteria. During the incident the cause of the surging in K-1800 was traced back to two 20ppm PSA. Due to all the plant feed cuts and shutdowns lead to the PSA was decreasing causing its performance to degrade causing lighter end			

https://impacterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

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32722	Refinery	3/12/2012 12:30:00	Closed	Loss	MPDES pH exceedance on storm water run-off	As per our MPDES permit, we are required to sample storm water run-off prior to the water entering a public body of water. This is done during storm events or rains where the water isn't contained. The water must meet several constituents to be considered on level. One of these constituents is pH. The water sampled at Gatorade Site on 3/17/12 tested at 8.7 pH while the upper limit is 8.5.	ML-Regulatory Compliance - Non Compliance - Water	(1) Lack of Skill or knowledge
32722	Refinery	3/12/2012 12:30:00	Closed	Loss	MPDES pH exceedance on storm water run-off	As per our MPDES permit, we are required to sample storm water run-off prior to the water entering a public body of water. This is done during storm events or rains where the water isn't contained. The water must meet several constituents to be considered on level. One of these constituents is pH. The water sampled at Gatorade Site on 3/17/12 tested at 8.7 pH while the upper limit is 8.5.	ML-Regulatory Compliance - Non Compliance - Water	(1) Lack of Skill or knowledge
32734	Refinery	3/23/2012 3:30:00	Closed	Loss	Minor Flaring due to MPDES (Process H2 Loop Pressure Control) suspected sticking.	Minor Flaring due to MPDES (Process H2 Loop Pressure Control) suspected sticking. On 2/23/12 at approximately 03:29 DHT PCO received Henrywell steam that V-1620's level (16LCO21B) had spiked from 50% to 80% and dimming causing a rapid pressure increase on the H2 Pressure Loop system (which during steady state operation vents to 5 H2S via 10P-CO2DA). As level and pressure increased 10P-CO2DA which vents directly to flare, opens to 40% output for approximately 15-20 seconds causing minor flaring.	Environmental	(1) V-1620 Level Controller LC-1620 021B sticks intermittently.
32741	Refinery	3/12/2012 12:00:00	Closed	Loss	K-910 Startup delayed	K-910 startup was delayed due to its Shutdown/running bulb on the Henrywell stage not being reset to the tuning mode. This subsequently caused a delay in startup as technicians troubleshooted and eventually found the open relay associated with the reset bulb on the Henrywell stage.	Operational Process/Procedures	(1) K-910 Startup delayed. Why was K-910 startup delayed? K-910 would not start. Why would K-910 not start? K-910 would not start because of an open relay. Why was there an open relay? The relay was open because the K-910 Reset switch was not reset on the Henrywell. Why was the reset switch not reset on Henrywell? Operators lack of knowledge around this reset.
32755	Refinery	3/12/2012 12:00:00	Closed	Loss	Missed routine duties and no corrective action form was initiated.	Cude side Inlet/air rounds for 312 D not approved. CHO SCBA missed no corrective action entered	ML-Operational Process/Procedures - Safety Systems	(1) The CHO did not check the hand held for routine duties due on his shift and failed to identify the missed duty during the HO approval process.
32757	Refinery	3/12/2012 7:00:00	Closed	Minor Loss	Pump tagged out of service	On 3/2/2012 at approximately 19:00 hrs, Operators conducting rounds at 4 Rhen, noticed a large seal leak on P-3592. Operators immediately notified Head Operator of condition, spare pump P-3592A appeared to be out of service, due to a lag starting pump was racked out at MCC. C-3590 Stripper Bottoms level rose as high as 71%, PCO reduced rates at 4 Rhen in order to control level and tried to push out product towards Rot Splitter. Rot Splitter is out of service due to work being conducted for Rhen Analyzer. Loto Box # 1169 had a Cirt Lock that needed to be removed. CFD was notified and proceeded to cut lock, at the same time Operators noticed P-3592A was not racked out at MCC, assisted P-3592A was lined up properly, bleeders closed - packed pump in service. Level on C-3590 remained in control, Rot Splitter remains out of service and 4 Rhen rates increased back to normal - 19:35 hrs.	ML-Business Process - Business Interruption	(1) Why was there an excessive amount of water carryover to FCC feed tank and wild napththa stream? Excessive amounts of water due to wash water injections in TCC not being isolated for 25 hrs after feed pull. Why were the water injections left open? Lack of good communication at turnover and operator oversight lead to the injections not being blocked in a timely manner.
32758	Refinery	3/23/2012 11:15:00	Closed	Minor Loss	Loss of flow to FCC during feed switch from T-3194 to T-3195	After getting good samples results on T-3195, T&B got permission from FCC to make a feed switch from T-3194 to T-3195. As soon as T-3195 was switched to the FCC, they saw the feed quality change to a lighter stock and then a loss of flow to their feed pumps and immediately reported it to T&B.	ML-Operational Process/Procedures - Plant Run Out/Slow Down	(1) The line setup was not checked thoroughly enough before the switch was attempted, to find the cold line below platform
32772	Refinery	3/22/2012 9:00:00	Closed	Loss	Wash water not shut off in E-719 After TCC Shutdown	After pulling feed from the TCC on 3/22/12 at approx 8:20 PM, the wash water injections to E-714, E-460 and E-711 were left running. Since the estimated volumes of water and oil that were sent to the FCC feed tank and down the Wild Napththa line. To FCC feed tank via C-710 bottoms - 13,000 gallons of stripped sour water. To D&R via V-710 overhead - 3.9 MB of Wild Napththa with high water content	Operational Process/Procedures	(1) Why did we overpressure V-1120 and trip the FCC Isolator. Because the V-1120 overhead jumper line at the NSO boundary was blocked in and normal routing to 20 plant got blocked in of a Once-Through. Why was the overhead jumper valve blocked in. Because work was done on the line during the 4Q NLP SIO and did not get unblocked after the line was unblocked. Why did the valve not get unblocked.

https://impactern.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

32804	Richmond, CA - Refinery PM	3/6/2012 8:00:00	Closed	Loss	Filing went while saving 20 plant up for once through to NISO.	directed to 4H2S through PG2154. A valve on the RLOP over head gas line out in the pipeline in front of NISO was left in the closed position. This valve is normally left in the open position, and was left closed from the RLOP minor. The valve on the RLOP out of the system which over pressured V1320 through the PRD to relief.	Environmental	Because their was confusion on who owned the valve, RLOP believed NISO owned the valve and NISO believed RLOP owned the valve. Why was their confusion on the ownership of this valve. The valve is located along Channel Street outside of NISO's plot limit.
32840	Richmond, CA - Refinery AM	3/6/2012 4:30:00	Closed	Loss	EE fell through pallet.	EE standing on pallet near S3 Gate fell through.	Injury/Illness	(1) EE failed to realize that stepping upon a pallet is considered unsafe and could lead to injury.
32840	Richmond, CA - Refinery AM	3/6/2012 4:30:00	Closed	Loss	EE fell through pallet.	EE standing on pallet near S3 Gate fell through.	Employee Injury - Injury/Illness	(1) EE failed to realize that stepping upon a pallet is considered unsafe and could lead to injury.
32844	Richmond, CA - Refinery AM	3/6/2012 5:20:00	Closed	Loss	Finger caught in vehicle door	While exiting the RLOP van an operator's finger was inadvertently pinched in the door.	Injury/Illness	(1) Hand was placed along door jam between front passenger door and rear riding door. The injured persons hand was placed there to maintain their balance while they grabbed their petard bag from the back seat. Person exiting front passenger door did not realize that the door was closed and had been placed along the door jam. The front passenger door was closed pinching the persons ring finger finger tip in the door.
32844	Richmond, CA - Refinery AM	3/6/2012 11:40:00	Closed	Loss	During Seal inspection T-3105 observed oil in P2 Portion	During Seal inspection of T-3105 observed oil in #1 portion of the floating roof and made notification to HES	Environmental	(1) We cannot ascertain the failure without taking tank OOS
32846	Richmond, CA - Refinery PM	3/6/2012 3:00:00	Closed	Loss	Direct burial line was damaged	While drilling a 24" diameter hole for a camera foundation the drill came into contact with a buried phone line.	Equipment/Property Damage	(1) Markings for the buried cable was approximately 20' away from the drilling location. The crew was more focused on the overhead hazards than the buried phone line which was to be relocated if contact was made.
32936	Richmond, CA - Refinery AM	3/7/2012 12:00:00	Closed	Loss	Vendor sent wrong material 304ss orderec Loss 316ss	Vendor sent 304 ss pipe on PO 10133853 and when PMI was done it was 316 ss. pipe was not marked.	NI - Business Process	
32936	Richmond, CA - Refinery AM	3/7/2012 12:00:00	Closed	Loss	Vendor sent wrong material 304ss orderec Loss 316ss	Vendor sent 304 ss pipe on PO 10133853 and when PMI was done it was 316 ss. pipe was not marked.	NI - Quality - Incorrect Product	
32937	Richmond, CA - Refinery AM	3/6/2012 6:00:00	Closed	Loss	Pipe rolled off bench and fell on ee foot.	Mechanic was fitting a 10 inch lg to a piece of pipe about 2 ft long when pipe rolled off V blocks and struck ee on foot.	Injury/Illness	(1) Why Did PSA Startup Bp FCC/Alky Initiators? PSA Startup shipped FCC/Alky flare initiators because the PSA product line overpressured and went to flare gas recovery.

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33003	Richmond, CA - Refinery	3/7/2012 2:30:00 AM	Closed	Loss	PSA startup tripped FCC Isolator	At 02:30 AM in 3/7/2012 operations were attempting to startup the PSA when pressure went past the 360 lb set point and continued to climb. The PSA was immediately shutdown and operations restricted the lineup. The pressure control valve on the outlet of the PSA 64P-C2415 was still single blocked. Operators opened the valve and restated the PSA with no further issues. Review of the procedure shows no step for ensuring the PC is unblocked.	Regulatory Compliance	Why did the PSA product line overpressure? The PSA product line overpressure because the Pressure controller downstream block valve was closed. Why was the product line valve closed? Operations missed opening the block valve during start up preparations. Due to Head operator radio issues - HD blocked in PC after lineup was verified to Leak check, the PC block valve was not opened. Why was the PC block valve not opened? The Head operator to PSA up before he received a confirmation of the order. Why Did the HO startup the PSA prior to radio confirmation? The head operator believed the radio protocol believing the operator understood or heard his order before the PSA was started up.
33003	Richmond, CA - Refinery	3/7/2012 2:30:00 AM	Closed	Loss	PSA startup tripped FCC Isolator	At 02:30 AM in 3/7/2012 operations were attempting to startup the PSA when pressure went past the 360 lb set point and continued to climb. The PSA was immediately shutdown and operations restricted the lineup. The pressure control valve on the outlet of the PSA 64P-C2415 was still single blocked. Operators opened the valve and restated the PSA with no further issues. Review of the procedure shows no step for ensuring the PC is unblocked.	Regulatory Compliance	Why did the PSA product line overpressure? The PSA product line overpressure because the Pressure controller downstream block valve was closed. Why was the product line valve closed? Operations missed opening the block valve during start up preparations. Due to Head operator radio issues - HD blocked in PC after lineup was verified to Leak check, the PC block valve was not opened. Why was the PC block valve not opened? The Head operator to PSA up before he received a confirmation of the order. Why Did the HO startup the PSA prior to radio confirmation? The head operator believed the radio protocol believing the operator understood or heard his order before the PSA was started up.
33045	Richmond, CA - Refinery	3/7/2012 12:00:00 AM	Closed	Near Loss	Shelter in place drill @ QCD communication was very poor.	At 02:30 AM in 3/7/2012 operations were attempting to startup the PSA when pressure went past the 360 lb set point and continued to climb. The PSA was immediately shutdown and operations restricted the lineup. The pressure control valve on the outlet of the PSA 64P-C2415 was still single blocked. Operators opened the valve and restated the PSA with no further issues. Review of the procedure shows no step for ensuring the PC is unblocked.	Operational Process/Procedures	(1) Why Did PSA startup the FCC/ALR tripping? PSA startup tripped FCC/ALR line tripping because the PSA product line overpressure and went to flare gas recovery. Why did the PSA product line overpressure? The PSA product line overpressure because the Pressure controller downstream block valve was closed. Why was the product line valve closed? Operations missed opening the block valve during start up preparations. Due to Head operator radio issues - HD blocked in PC after lineup was verified to Leak check, the PC block valve was not opened. Why was the PC block valve not opened? The Head operator to PSA up before he received a confirmation of the order. Why Did the HO startup the PSA prior to radio confirmation? The head operator believed the radio protocol believing the operator understood or heard his order before the PSA was started up.
33045	Richmond, CA - Refinery	3/7/2012 12:00:00 AM	Closed	Near Loss	Shelter in place drill @ QCD communication was very poor.	At 02:30 AM in 3/7/2012 operations were attempting to startup the PSA when pressure went past the 360 lb set point and continued to climb. The PSA was immediately shutdown and operations restricted the lineup. The pressure control valve on the outlet of the PSA 64P-C2415 was still single blocked. Operators opened the valve and restated the PSA with no further issues. Review of the procedure shows no step for ensuring the PC is unblocked.	Operational Process/Procedures	(1) Why Did PSA startup the FCC/ALR tripping? PSA startup tripped FCC/ALR line tripping because the PSA product line overpressure and went to flare gas recovery. Why did the PSA product line overpressure? The PSA product line overpressure because the Pressure controller downstream block valve was closed. Why was the product line valve closed? Operations missed opening the block valve during start up preparations. Due to Head operator radio issues - HD blocked in PC after lineup was verified to Leak check, the PC block valve was not opened. Why was the PC block valve not opened? The Head operator to PSA up before he received a confirmation of the order. Why Did the HO startup the PSA prior to radio confirmation? The head operator believed the radio protocol believing the operator understood or heard his order before the PSA was started up.
33049	Richmond, CA - Refinery	3/8/2012 12:00:00 AM	Closed	Near Loss	Supplier Overpayment	Order was created and paid against receipt of order instead of paying against invoice. Invoice change was less than cost on Purchase Order. Purchase order tagged an overpayment of \$6,414.41.	NL-Business Process	
33134	Richmond, CA - Refinery	3/8/2012 8:00:30 AM	Closed	Near Loss	Green Card, Repair Material, Location: BAS Bridge 134	Green Card 1 used the handrail to balance myself and it gave way. It still appears solid but it is not. Please repair. Location: BAS Bridge 134	NL-Injury/Illness - Employee Injury	
33147	Richmond, CA - Refinery	3/8/2012 9:00:00 AM	Closed	Near Loss	Loss of iso key	Lost K1100A iso key	NL-Business Process - Business Process	
33152	Richmond, CA - Refinery	3/7/2012 12:00:00 AM	Closed	Loss	Warehouse representative disposed of 15 reclaimed fire hydrants. Hydrants were later found in a dumpster and recovered.	Warehouse representative disposed of 15 reclaimed fire hydrants. Hydrants were later found in a dumpster and recovered. Reclamation where they would not be disposed of for later use.	NL-Lessons Learned	
33167	Richmond, CA - Refinery	3/8/2012 2:00:00 PM	Closed	Near Loss	Lost LOTO lock key box #1854	While attempting to un-LOTO pump operator found key from lock box #1854 had become lost at some point in the past.	NL- Equipment/Property Damage - Equipment Damage	
33167	Richmond, CA - Refinery	3/8/2012 2:00:00 PM	Closed	Near Loss	Lost LOTO lock key box #1854	While attempting to un-LOTO pump operator found key from lock box #1854 had become lost at some point in the past.	NL- Operational Process/Procedures - Safety Systems	(1) The APP failed because Header information went bad on 2 drives Why did the drives fail? Drive failed possibly due to running older FW on Paros Why was the server running older firmware? The Paros was still running old firmware since we need to test the new Software on test system before running it in the plant. Why was the firmware not tested? The new Paros FW has been tested and tested on training system and the Paros FW upgrade has been tested on training system and Management system so we can proceed with installation. Why was the tested firmware not installed? The Chicago HAS

33170	Richmond CA - Refinery	2/28/2012 12:00:00 AM	Closed	Near Loss	APF node 32 failed, lost two DMC controllers in DAR	Server failed because 2 of the 5 Raid controller Hard Drives failed. The 2 DMC controllers running within that Apf Node server for advanced control were unavailable for use while the servers were down.	NL-Business Process - Business Process	been approved and we are waiting the bundle this with APF node upgrade to the APF node so we can minimize APF node reboots and APF nodes down time. Root cause was not determined. The root cause is pointing to the P&ID P&V coming on the APF node
33105	Richmond CA - Refinery	3/6/2012 5:00:00 PM	Closed	Near Loss	135# steam introduced into P-2 suction header at #1 isolator off-leading	Operations was attempting to pump-off a vacuum truck containing gasoline into T-3127. P-2 was having difficulty pumping the product from the vacuum truck; it was not moving. The operator opened the bleeder to vent the pump case and bled off any air trapped in the linepump case but was still unable to move product. The pump was shut down and the line was rechecked for a possible disconnection. The valve alignment type discovered that the P-2 suction header at #1 isolator was not properly aligned. It was determined that a 135# steam valve was cocked up the suction line and vapor locked the pump. The steam was pressuring up the suction line and vapor locking the pump.	NL-Injury/Illness - Employee Injury	(1) The root cause of the incident was the failure of an unidentified individual to tag a valve that was opened which is normally closed. (2) The turnover did not reflect the current status of the plant, that a normally closed steam valve was opened. (3) The P&ID P&V was not properly maintained. (4) The individual who opened the valve while discharging a truck.
33243	Richmond CA - Refinery	3/6/2012 9:30:00 AM	Closed	Loss	Operator bang his wrist to keep from falling overboard in a work boat.	During a CII Spill training exercise a operator was thrown overboard and another injured his wrist trying to keep from being thrown over the side when they were making a turn and a wave hit the boat causing one operator to fall his arm out to stabilize himself injuring his arm.	NL-Injury/Illness	(1) Lack of experience on present equipment and training.
33248	Richmond CA - Refinery	3/6/2012 4:30:00 PM	Closed	Near Loss	Operator bang his wrist to keep from falling overboard in a work boat.	During a CII Spill training exercise a operator was thrown overboard and another injured his wrist trying to keep from being thrown over the side when they were making a turn and a wave hit the boat causing one operator to fall his arm out to stabilize himself injuring his arm.	NL-Operational Process/Procedures Plant Run Out/Slow Down	(1) Lack of experience on present equipment and training.
33248	Richmond CA - Refinery	3/6/2012 4:30:00 PM	Closed	Near Loss	Electrical Lube oil pump K- 1601 tripped	The PRT was being taken out of service to prepare for the start up of P-1601a when the Aux lube oil pump started then tripped out. The breaker tripped in the MCC.	NL-Operational Process/Procedures Plant Run Out/Slow Down	(1) bearing failure of auxiliary lube oil pump, the pump was original install 20 plus years. (2) back up lube oil pump P-1603A hand switch has normally set to off as it is a back up to the spare
33248	Richmond CA - Refinery	3/6/2012 4:30:00 PM	Closed	Near Loss	Electrical Lube oil pump K- 1601 tripped	The PRT was being taken out of service to prepare for the start up of P-1601a when the Aux lube oil pump started then tripped out. The breaker tripped in the MCC.	NL-Operational Process/Procedures Plant Run Out/Slow Down	(1) bearing failure of auxiliary lube oil pump, the pump was original install 20 plus years. (2) back up lube oil pump P-1603A hand switch has normally set to off as it is a back up to the spare
33265	Richmond CA - Refinery	3/9/2012 7:00:00 PM	Closed	Loss	Small piping leak on V- 1421 (IC4) drain line to blowdown header	At - 16:00, while making rounds, the plant operator found an IC4 leak off the bottom of V-1421 Economizer. The leak is on the 3" drain line off of the outlet of V-1421.	Environmental	(1) Incident Number 33265 Business Unit Cracking Location Alloy Facility Name Richmond Incident date 3/6/2012 Type of Process: IC4 Type of Equipment: Piping Team Members: Laura Leeds Mari Lemke/Bobby Gullmiller Pirelli Prasad

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33388	CA - Refinery	12:00:00 AM	Closed	Loss	HNC due to F-1551 draft / NOX limitations	NOX limit (6 hr rolling avg). As a result, the HNC is limited by both draft and F-1551 NOX.	Operational Process/Procedures	Procedures, (4) Communication of Standards, Policies, Administrative Controls (SPAC) Needs Improvement
33389	Richmond, CA - Refinery	3/12/2012 6:00:00 PM	Closed	Loss	Hand, finger danger - pinch point car door - personal car-not work car	S.O. slammed finger in car door	NL-Injury/Illness - Contractor Injury	(1) Officer was not paying attention when she closed the door to her car. She did not ensure that her hand was safely out of the way before she shut the door, causing her finger to be smashed between the door and the car body.
33389	Richmond, CA - Refinery	3/12/2012 6:00:00 PM	Closed	Loss	Hand, finger danger - pinch point car door - personal car-not work car	S.O. slammed finger in car door	Injury/Illness	(1) Officer was not paying attention when she closed the door to her car. She did not ensure that her hand was safely out of the way before she shut the door, causing her finger to be smashed between the door and the car body.
33447	Richmond, CA - Refinery	3/13/2012 6:00:00 AM	Closed	Loss	Possible insect bite during fire training	EE showed signs of a possible insect bite on his calf	Injury/Illness	(1) unknown possible insect bite
33447	Richmond, CA - Refinery	3/13/2012 6:00:00 AM	Closed	Loss	Possible insect bite during fire training	EE showed signs of a possible insect bite on his calf	NL-Injury/Illness - Employee Injury	(1) unknown possible insect bite
33453	Richmond, CA - Refinery	3/10/2012 5:00:00 PM	Closed	Near Loss	Operator missed a once a month MTF refresher duty. The HO did not see the missed duty during his approvals and did not challenge the operator to get it done on time.	Operator missed a once a month MTF refresher duty. The HO did not see the missed duty during his approvals and did not challenge the operator to get it done on time. MTF Operator claimed he did not see the once a month duty on his handhold	NL-Operational Process/Procedures - Safety Systems	(1) HO did not properly check the Intelitrac database when doing approvals at end of shift, (2) Operator did not scroll far enough in the list. This previous practice was acceptable and not yet corrected, (3) HO did not follow written instruction that was previously followed
33490	Richmond, CA - Refinery	3/13/2012 12:00:00 AM	Closed	Near Loss	Focused on solving the leak problem rather than focusing on how the organization was managing the line leak.	Why did I, as the leak continued, focus on solving the problem rather than focusing on how the organization was managing the V4121 line leak, such as plan development and task assignments? Should have made sure who was doing what and placed expectations on required performance. As the problem was not getting solved, I focused my efforts on the actual problem and potential solutions and not on the process for solving the problem.	NL-Business Process -Business - Interruption	(1) Problem Statement (What is the key issue that needs to be addressed? Why did individual, as the leak continued, focus on solving the problem rather than focusing on how the organization was managing the V4121 line leak, such as plan development and task assignments? Should have made sure who was doing what and placed expectations on required performance. As the problem was not getting solved, leader focused efforts on the actual problem and potential solutions and not on the process for solving the problem. FIVE WHYS 1. Why did "above" happen? Still not clear how RIC works. I thought we could repair the leak without putting together a formal plan and assigning responsibilities. I assumed everyone knew what they are supposed to do and that everyone was self motivated to get it done. 2. Why did "I" happen? Thought that the performance in the division was good and saw that the CA was all over it so it would get resolved "naturally". 3. Why did "X" happen? Past experience had been that telling things happen naturally has been successful in cracking. 4. Why did "3" happen? Because LCI is a time of urgency and compliance in their respective position. 5. Why did "4" happen? In the past had been successful in solving the problem resolved by focusing on the problem and not the process.
33507	Richmond, CA - Refinery	3/14/2012 6:15:00 AM	Closed	Near Loss	Green Card, Parking space lines are not visible. Location: Gate 51 parking lot	Green Card, Main parking lot parking space lines are very hard to see when it is dark and rainy. Lines are not very visible any longer. Location: Gate 51 parking lot	NL-Lessons Learned	
33519	Richmond, CA - Refinery	2/14/2012 12:00:00 AM	Closed	Loss	Prioritizing FCC cat dump valve as a four resulted in a catalyst activity loss. Indicates Loss in high value product is higher than production impact estimate used to set priority for valve repair.	the loss for February is about \$213K. The dump valve was broken on 2/14, and the activity slowly declined until 3/2/12 (the last ECAT sample result), assuming the decline in activity & profitability is linear from 2/14, and that the losses are due to only the catalyst activity (excluding feed effects). So if the maximum daily loss was \$32K on 3/2/12, then the loss increased by \$1778 each day starting on 2/15.	Business Process	(1) Identifying Production loss used to determine priority of work related to catalyst activity is based in either the fact data (1) The main problem is that contractor refresher training was not conducted within the required time frame for annual renewal. Why was training not conducted? Because the contractor's Site Supervisor did not request/trange for a training session for the crew within 1 year of the most recent training session. Why was training not requested? Because the Site Supervisor wasn't sure when training was due. Why was he not sure? Because he was not using the established tracking tool for monitoring the due date (on the training that

33522	Richmond, CA - Refinery	3/13/2012 2:00:00 PM	Closed	Near date	Contractor Training out of annual renewal.	NI-Regulatory Compliance - Non	was missed). In fact, he was intentionally disregarding it. Why was he not using the lock? Because the lock, an Exco spreaderlock, was broken. The most recent training date reported in the sheet was over a year out of date. This Site Supervisor says he knew there had been a more recent class, that the sheet contained encircled signatures, and that he had been told of a training session. He did not know the date of the training session. The Site Supervisor was actively working to get the missing information. There was confusion about whose responsibility it was to follow up. Root Cause identified as inadequate Communications of Expectations Regarding Procedure. The communication by Management on expectations of the procedure for tracking and complying with training requirements needs improvement. (2) The main problem is that contractor refresher training was not conducted within the required time frame for annual renewal. Why was training not conducted? Because the contractor's Site Supervisor did not request a change for a training session for his crew within 1 year of the most recent training session. Why was training not requested? Because the Site Supervisor wasn't sure when the training was due. Why wasn't he sure? Because he wasn't using the established tracking tool for monitoring the due date (on the training that was missed). In fact, he was intentionally disregarding it. Why was he not using the lock? Because the lock, an Exco
33523	Richmond, CA - Refinery	3/13/2012 2:00:00 PM	Closed	Loss	The upper bearing on P-104 was missing a grinding roller. Operations SPD the pump and scheduled a work order. The contractor removed the cover plate for the upper bearing and discovered the bearing to be damaged.	Equipment/Property Damage	(1) Bearing failed due to inadequate lubrication level. The tool chest was not at the proper height to maintain the correct oil level. (2) No oil level indicating tags
33533	Richmond, CA - Refinery	3/13/2012 2:30:00 PM	Closed	Near date	Manual Vis bath was cloudy. A second operator noticed the cloudy liquid appearing metallic. At the same time they noticed the thermometer was missing. They concluded the oil bath might be contaminated with mercury, both added by the MSD. They CO notified the on shift SIL and GPCD. GPCD used a mercury vapor detector used in the past to detect mercury vapor (not a gas) to test for potential mercury contamination in the bath. GPCD confirmed that there was no mercury (0.000 PPM) outside of the Vis oil bath. The manual Vis bath of temperature is regulated to 100 C or 212 F. Mercury boiling point is 614 F. Why did this mercury thermometer break? Investigation underway. Later update the reflection screen was painted with a metallic finish - the cloudy appearance maybe paint. Hazardous waste and Lab both to investigate 3/15	NI-Regulatory Compliance - Equipment Damage	(1) Personnel used a different process improve equipment part life, without following PSM process for change. (2) Personnel did not understand procedure following mercury spill
33536	Richmond, CA - Refinery	3/14/2012 7:13:00 PM	Closed	Near date	Contractor could not get Degass Unit running on time when T-3183 roof landed while pumping T-3183 to T-580	NI-Operational Process/procedures - Plant Run Out/Slow Down	(1) GEM Mobile did communicate with their technician's, the impact of maintenance in these boiler system and did not have safeguard in place to protect moisture from getting inside the control panel. (2) GEM Mobile did communicate with their technicians the impact of maintenance in their boiler system and did not have safeguard in place to protect moisture from getting inside the control panel.
33537	Richmond, CA - Refinery	3/14/2012 7:30:00 PM	Closed	Loss	MP-2511 seal loss, cause the SRU water concentrator to shut down. MP-2511 is the only feed pump. Spare is available to replace only pump in plant.	Equipment/Property Damage	(1) Root Cause Analysis: Why? Feed Sheet Pocket Tilt Incident Description: MP-2511 seal loss caused SRU water concentrator to shut down. MP-2511 is the only feed pump. Facilitator: JJ Allen Five Why Questions: Verification: 1. Why did the 'above' happen? Seal using excessive seal oil. Operators got a low level alarm in the control house and found that there was excessive seal oil leakage from the seal to the atmosphere. Operators 2. Why did the 'above' happen? Atmospheric seal side faces opened up allowing the excessive seal oil leakage. JJ Allen 3. Why did the 'above' happen? Seal found to have heavy fouling due to contaminated seal oil. JJ Allen 4. Why did the 'above' happen? Contamination caused by process carryover into the seal oil system and/or contaminated seal oil added to the seal oil tank. JJ Allen 5. Why did the 'above' happen? 6. Why did the 'above' happen? 7. Why did the 'above' happen? Root Cause: 1. Why? Seal oil was added to the seal oil system components to fill allowing excessive seal oil leakage. Basic Cause Category: 2 Basic Cause Category: 3 Basic Cause Category:

3394	Refinery	AM	Closed	Loss	Roll-Up Door Repair	Repair work. Vendor 2 is a local Richmond business.	- Business Process
3395	Richmond, CA - Refinery	7:00:00 PM	Closed	Near Loss	Electrically racked in P1129A	P1129A was electrically racked out. P118 had high temp reading. P1129A is spare pump for P1119 and P1128. In the event of loss of P1119, Result would be cut feed to C/Guide Unit, loss of full production to JHT.	NL-Business Process - Business Process
3396	Richmond, CA - Refinery	3/18/2012 10:00:00 PM	Closed	Loss	PUL PRD found releasing into 21 station sump	Based operator informed the third operator he had received a repeat message for high temp alarm at 21. Operator confirmed filling of the sump and began pumping water from the tank onto the PUL line and the PRD unit has been released to the sump. The release of the PUL line and the PRD unit has been noticed by the station which are set at between 230 and 275 ft. It took like the setting of 100 PSI may have been set too low. It was installed weeks earlier to protect the line and filter pots at the Sales Racks when the line is isolated above 21 stations for work.	Operational Process/Procedures
3397	Richmond, CA - Refinery	2:00:00 AM	Closed	Near Loss	Seal leak on P-283 (V-283 relet drum pump).	Retail pump P-283 seal started leaking. Ops quickly found the source. Pump was isolated and spare pump put in service. Ase was washed down and area cleaned up.	NL-Environmental - Operational Task
3398	Richmond, CA - Refinery	3/12/2012 12:30:00 PM	Closed	Near Loss	MCP Stret Circuit Protection Stalling for MP-8	The MCP (Motor Circuit Protector) for MP-8 was not too high during installation to properly protect the motor. The MCP was found to be left in the "C" setting, which corresponds to a trip value of 1350 Amps. The locked rotor current for this motor is 382 ARMS, while the full load current is 85 Amps. When the short circuit protection set this high, there is the risk of damaging the both the motor and motor starter in a full lock due to a single motor stall.	NL-Equipment/Property Damage - Equipment Damage
3399	Richmond, CA - Refinery	2/28/2012 7:00:00 AM	Closed	Loss	Green Card. Further cleanup of vegetation needed. Location: LSFO - SW 553/54	Green Card Traffic visibility construction onto Channel St from entrance to Switchgear area from traffic coming from the south. Removed tree vegetation with approval of Chevron Permit Contract Reg. further cleanup of vegetation is needed. Location: LSFO - Switchgear 553/54. West by D&R Flare, LPO Solution # 1262/06	NL-Lessons Learned
3399	Richmond, CA - Refinery	2/12/2012 12:00:00 AM	In Progress	Near Loss	Contract company AC3 involved incorrect mechanic labor rate.	CX company rep called a Procurement category specialist to verify a mechanic labor rate for contract company AC3. The contractor was invoicing for a rate of \$85.00/hr. However, after the category specialist reviewed the contract it was found that the current contracted labor rate for a mechanic with AC3 was \$70.50 / hr.	NL-Business Process
3399	Richmond, CA - Refinery	3/20/2012 12:22:00 PM	Closed	Loss	K-GTD shutdown on false low pressure suction alarm resulting in the tip of the FCC Isolifier.	K-1070 was running with K-1050 on standby. K-1070 shut down on a low pressure suction alarm @P1050B. It appears this was a faulting pressure indication. The FCC Isolifier tripped with no visible flame.	Environmental
3399	Richmond, CA - Refinery	3/20/2012 12:00:00 AM	In Progress	Near Loss	Light off torch and tank exposed elements from tailing prop	Experienced the lighter was moving the propane torch tank toward the prop for ignition when the vapors from the prop ignited due to a change in wind direction.	NL-Equipment/Property Damage - Equipment Damage
3400	Richmond, CA - Refinery	3/21/2012 12:00:00 AM	Closed	Loss	Extra Work submitted for ZSRU TIA GHG meter inspections	The inspection of ventilar flow element ZPE E100 during the ZSRU TIA was submitted as late, extra work. This item is being submitted as extra work because the CARB AB32 regulations were finalized in Dec-2011 which was after the Aug 2011 scope input freeze date. Doing this work is required as part of our mandatory reporting of Greenhouse Gas and will help to ensure we receive a positive verification from the auditors. Positive verification is critical to our ability to participate in Cap and Trade.	Burnish Process
3401	Richmond, CA - Refinery	3/21/2012 12:00:00 AM	Closed	Near Loss	Refinery Home page down because Database error down (ticketing305)	Help Desk received phone calls that the Refinery Home page was not coming up. After investigation by IT group, it was determined that one of our main database servers, rcd41nq3d3 was down. Server was brought back online after 2 hours and that fixed the problem. Loss affected the ability for people to access the Richmond Refinery Website. This site is used by the refinery personnel to access local information and links. We experience around 300-500 hits on the website during this timeframe so estimate that approx. 500 people could not access the website and would be inconvenienced. Typprints was available outside the refinery gates and they were able to print about 1.5 hours to determine issue and power back on later. Estimated cost to return to business would be \$500 based on their hourly labor costs.	NL-Business Process Interruption
3402	Richmond, CA - Refinery	AM	Closed	Loss	Brand EE was in the process of erecting a scaffold, and due to tight quarters corrected a 1 cup extension to the 10' leg before installation. EE then slabbbed the 10' leg with the 1 cup extension at the end of the leg, but the two pieces weren't locked together. The extension became separated from the leg due to three overhead cranes and ten 5 to 8 ft shifting the EE on the side of the handrail and fell below the ear. The extension is 2 dia pipe, 8 1/2 long and weighing 3 1/2 lbs		NL-Business Process Interruption
3403	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Contractor did not adhere to their contractual rates. (2) Lack of skill or knowledge by supervisor for not following contractor compensation schedule	(1) Communication of specific condition. Tag not updated that there was a ground fault after troubleshooting was completed
3404	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Why did K-1070 trip off line Because suction pressure dropped below 3 inch which is the SD point Why did the suction pressure drop? Because the suction line was disconnected from 8 inches to 2 inches. Why did P11050B drift low Because it and a undetermined failure.	(1) Contractor did not adhere to their contractual rates. (2) Lack of skill or knowledge by supervisor for not following contractor compensation schedule
3405	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) NL: Potential Damage to MFC-8. Why? Motor MCP was set too high. Why? Motor MCP setting was not included in EVOY. Why? MCP setting was not determined in a coordination study. Why? Engineer did not know that coordination studies were required for smaller 400V motor installations. Why? Lack of Skill or Knowledge	(1) NL: Potential Damage to MFC-8. Why? Motor MCP was set too high. Why? Motor MCP setting was not included in EVOY. Why? MCP setting was not determined in a coordination study. Why? Engineer did not know that coordination studies were required for smaller 400V motor installations. Why? Lack of Skill or Knowledge
3406	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Failure to comply with the MOC process.	(1) Failure to comply with the MOC process.
3407	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) seal leak on P-283	(1) seal leak on P-283
3408	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) NL: Potential Damage to MFC-8. Why? Motor MCP was set too high. Why? Motor MCP setting was not included in EVOY. Why? MCP setting was not determined in a coordination study. Why? Engineer did not know that coordination studies were required for smaller 400V motor installations. Why? Lack of Skill or Knowledge	(1) NL: Potential Damage to MFC-8. Why? Motor MCP was set too high. Why? Motor MCP setting was not included in EVOY. Why? MCP setting was not determined in a coordination study. Why? Engineer did not know that coordination studies were required for smaller 400V motor installations. Why? Lack of Skill or Knowledge
3409	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Contractor did not adhere to their contractual rates. (2) Lack of skill or knowledge by supervisor for not following contractor compensation schedule	(1) Contractor did not adhere to their contractual rates. (2) Lack of skill or knowledge by supervisor for not following contractor compensation schedule
3410	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Why did K-1070 trip off line Because suction pressure dropped below 3 inch which is the SD point Why did the suction pressure drop? Because the suction line was disconnected from 8 inches to 2 inches. Why did P11050B drift low Because it and a undetermined failure.	(1) Why did K-1070 trip off line Because suction pressure dropped below 3 inch which is the SD point Why did the suction pressure drop? Because the suction line was disconnected from 8 inches to 2 inches. Why did P11050B drift low Because it and a undetermined failure.
3411	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Richmond Refinery Webpage becomes unavailable when SQL Server Database was powered down accidentally during electrical work being done in the Data Center. Why? Document being referenced was mis-read and person performing electrical work did not realize that the server was connected and in use. Why? Usually a team of two perform this work and one team member will verify the work and documentation. Second team member was unavailable due to a last minute unrelated request and rather than wait for the person, work proceeded. Why? The type of work had not been done in the past. (2) Refinery Webpage should not be used to SQL Server database being available so that it can function.	(1) Richmond Refinery Webpage becomes unavailable when SQL Server Database was powered down accidentally during electrical work being done in the Data Center. Why? Document being referenced was mis-read and person performing electrical work did not realize that the server was connected and in use. Why? Usually a team of two perform this work and one team member will verify the work and documentation. Second team member was unavailable due to a last minute unrelated request and rather than wait for the person, work proceeded. Why? The type of work had not been done in the past. (2) Refinery Webpage should not be used to SQL Server database being available so that it can function.
3412	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) Contractor did not adhere to their contractual rates. (2) Lack of skill or knowledge by supervisor for not following contractor compensation schedule	(1) Contractor did not adhere to their contractual rates. (2) Lack of skill or knowledge by supervisor for not following contractor compensation schedule
3413	Richmond, CA - Refinery	3/21/2012 1:55:00 PM	Closed	Loss	Brand EE stuck on hand	(1) NL: Potential Damage to MFC-8. Why? Motor MCP was set too high. Why? Motor MCP setting was not included in EVOY. Why? MCP setting was not determined in a coordination study. Why? Engineer did not know that coordination studies were required for smaller 400V motor installations. Why? Lack of Skill or Knowledge	(1) NL: Potential Damage to MFC-8. Why? Motor MCP was set too high. Why? Motor MCP setting was not included in EVOY. Why? MCP setting was not determined in a coordination study. Why? Engineer did not know that coordination studies were required for smaller 400V motor installations. Why? Lack of Skill or Knowledge

34093	Richmond, CA - Refinery	3/26/2012 8:00:00 AM	Closed	Near Loss	TP-136 PSV lifted before set pressure	NI - Equipment/Property Damage - Equipment	(1) PSV lifted before set pressure
34095	Richmond, CA - Refinery	3/27/2012 9:20:00 AM	Closed	Loss	Technician smelled odor while VOC monitoring.	Injury/Illness	(1) Technician smelled H2S and made him nauseous.
34111	Richmond, CA - Refinery	3/27/2012 4:00:00 PM	Closed	Loss	During heating a firefighter fell down stairs. Firefighter was one of the instructors for structure firefighting.	Injury/Illness	(1) Body position/knees were not relaxed frequently enough during structure fire to recreate air gaps between skin and clothing. (2) Firefighter was aware of potential hot air areas of room and where to position himself but was focused on monitoring students as a safety officer.
34111	Richmond, CA - Refinery	3/27/2012 4:00:00 PM	Closed	Loss	During heating a firefighter fell down stairs. Firefighter was one of the instructors for structure firefighting.	NI - Injury/Illness - Employee Injury	(1) Body position/knees were not relaxed frequently enough during structure fire to recreate air gaps between skin and clothing. (2) Firefighter was aware of potential hot air areas of room and where to position himself but was focused on monitoring students as a safety officer.
34129	Richmond, CA - Refinery	3/27/2012 5:20:00 PM	Closed	Near Loss	Operators personal H2S monitor activated during rounds	NI - Operational Process/procedures - Safety Systems	(1) Why was the crated box worn to the touch, the factory plastic covering of the motor was very soft and smellored in appearance, and heating a mild burnt plastic smell/or to it? The space heating was designed for 480volt power but showed up with 120volt and team decided to hook up 480volt anyway. Why did the team hook up 480volt power instead of factory supplied 120volt? They assumed 120volt power would not be enough heating for such large motor. Why did they assume not enough heating would be produced by 120volt power? They did not factor in the sealed crate container with no ambient air flow to cool it and thought it would require the full 480volt power based on the size of the motor and wet/house ambient conditions. Why did they assume improper heating effects? Lack of skill and knowledge. (1) Project team member thought more heat would be better and applied a higher voltage than recommended why 172? Did not address to factory specs calling for 208volt power source and did not calculate effects of 480volt not consulted factory for electrical damage for elevation. Why 27 (3) lack of experience to design a system with such large magnitude asset and not consulting factory or engineering SMEs
34138	Richmond, CA - Refinery	3/26/2012 12:00:00 AM	Closed	Near Loss	Space Heater MK-900's motor overheating due to space heaters	NI - Equipment/Property Damage - Equipment	(1) Why? - Internal spring is broken and the bellows is holed through (verified through inspection) 2. Why? - unknown (possibilities below including action items to prove right/wrong) a. Bellows and spring material incompatible with process conditions - materials engineers verified bellows made from adequate material for process conditions b. One time large event (process pressure spike) ruptured bellows and broke the spring - not likely, but cannot verify as there is no pressure gauge that records data on C-140. Trends off of V-141 which is past E-140 condensers shows a time

https://impacterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

34345	Refinery	PM	Closed	Loss	Green Card, A big overhead steam leak needs to be fixed.	Main Street.	Company	
34347	Refinery	PM	Closed	Loss	Green Card, A big overhead steam leak needs to be fixed. Location: SISO - V-401/V-430	Green Card, A big overhead steam leak needs to be fixed because a lot of hot condensate falls down on walkway and it creates a lake. Location: S. Isomax, West of V-430	NI-Injury/Illness - Contractor Injury	
34347	Refinery	PM	Closed	Loss	Green Card, A big overhead steam leak needs to be fixed. Location: SISO - V-401/V-430	Green Card, A big overhead steam leak needs to be fixed because a lot of hot condensate falls down on walkway and it creates a lake. Location: S. Isomax, West of V-430	NI-Injury/Illness - Employee Injury	
34350	Refinery	AM	Closed	Loss	Green Card, A big overhead steam leak needs to be fixed. Location: SISO - T-2920A	Green Card, A big overhead steam leak needs to be fixed because a lot of hot condensate falls down on walkway and it creates a lake. Location: S. Isomax, West of V-430	NI-Injury/Illness - Contractor Injury	
34352	Refinery	PM	Closed	Loss	Green Card, Lots of steam leaks in area. Location: SISO - D-255C	Green Card, An employee came out to job site with job of steam leaks in area and very loud noise without wearing earplugs. Location: S. Isomax D-255C	NI-Injury/Illness - Employee Injury	
34354	Refinery	AM	Closed	Loss	Green Card, A very bad steam leak under the dock. Location: SISO K-940	Green Card, A very bad steam leak under the dock on K-940 needs to be fixed because it is hard to walk on the deck while steam blows everywhere. Location: S. Isomax K-940	NI-Injury/Illness - Contractor Injury	
34356	Refinery	PM	Closed	Loss	Green Card, A big steam leak on the deck. Location: SISO - D-255C	Green Card, A big steam leak on the deck needs to be fixed because it is hard to walk on the deck while steam blows everywhere. Location: S. Isomax D-255C	NI-Injury/Illness - Employee Injury	
34357	Refinery	AM	Closed	Loss	Green Card, A drain next to V-461 is plugged and needs to be unplugged. Location: D&R NHT V-461	Green Card, A drain next to V-461 is plugged and needs to be unplugged because the area and walkways are covered with water. Location: S. Isomax, North of K-950	NI-Lessons Learned	
34359	Refinery	PM	Closed	Loss	Green Card, A check valve leak behind insulation. Location: D&R NHT MP-495	Green Card, MP-495 - A check valve leak behind insulation. Cannot see what side it's leaking from. It might be an outlet needs to be fixed. Lots of condensate on walkway. Location: D&R NHT MP-495	NI-Environmental - Operational Leak	
34360	Refinery	PM	Closed	Loss	Green Card, A steam leak. Location: SISO - K-950	Green Card, A 3/4 inch came off and leaking out a lot of steam. It's under 2 steps still just north of K-950. Location: S. Isomax, North of K-950	NI-Injury/Illness - Contractor Injury	
34362	Refinery	PM	Closed	Loss	Green Card, Steam leak. Location: SISO - E-942	Green Card, Lube oil is leaking out at the 3/4 inch and 1/2 inches and is leaking out to walkways. Location: S. Isomax E-942	NI-Environmental - Operational Leak	
34363	Refinery	AM	Closed	Loss	Green Card, Leak on small mainway. Location: D&R NHT V-457	Green Card, Found a leak on small mainway and it looks like we need to change out the gasket. Location: D&R NHT V-457	NI-Environmental - Operational Leak	
34365	Refinery	AM	Closed	Loss	Green Card, An overhead steam leak. Location: SISO K-960	Green Card, An overhead steam leak behind insulation needs to be fixed because a lot of condensate is falling down in walkways. Location: S. Isomax K-960	NI-Injury/Illness - Employee Injury	
34367	Refinery	AM	Closed	Loss	Green Card, A steam leak near mainway. Location: SISO K-910	Green Card, The washdown station at K-910 needs to be fixed because of a steam leak near mainway. It looks very unsafe with light walkways. Location: S. Isomax K-910	NI-Injury/Illness - Contractor Injury	
34368	Refinery	AM	Closed	Loss	Green Card, Posted signs blown over. Location: Gate 91 parking lot	Green Card, There were a lot of posted signs (wind, speed, direction, no parking signs) blown over from the wind. Location: Gate 91 Parking Lot	NI-Transportation - Contractor	
34369	Refinery	AM	Closed	Loss	Green Card, A stop sign is down again at Mill St. and Zeroline St.	Green Card, A stop sign is down again at Mill St. and Zeroline St.	NI-Transportation - Company	
34370	Refinery	AM	Closed	Loss	Green Card, Bubbles coming up from ground. Location: Gate 91	Green Card, Bubbles are coming up from the ground between Trinec Tool Trailer and Safety Gear Trailer. Location: Gate 91	NI-Lessons Learned	
34371	Refinery	AM	Closed	Loss	Green Card, A stop sign is down at Bridge 166. The wind blew it down.	Green Card, A stop sign is down at Bridge 166. The wind blew it down.	NI-Transportation - Company	
34371	Refinery	AM	Closed	Loss	Green Card, A stop sign is down at Bridge 166. The wind blew it down.	Green Card, A stop sign is down at Bridge 166. The wind blew it down.	NI-Transportation - Contractor	

34372	Richmond, CA - Refinery	3/18/2012	7:30:00 AM	Closed	Near Loss	Green Card. Banding around TK3102 has come apart. Location: 3102 Tank	Green Card. The banding on TK3102 has come apart above sampling platform. It needs to be repaired. Location: Tank Field Eqs. 3102 Tank	NL-Lessons Learned	
34374	Richmond, CA - Refinery	3/22/2012	2:30:00 PM	Closed	Near Loss	Instrumentation line broke off. Location: 4 Crude, Next to E-1105A	Green Card. 1/2 instrumentation line broke off and causing a tripping hazard and head knocker. Location: 4 Crude. Next to E-1105A	NL-Injury/Illness - Contractor Injury	
34507	Richmond, CA - Refinery	3/27/2012	11:00:00 AM	Closed	Loss	Boiler # 5 tripped off-line and 1054M, E/H of steam was lost.	Boiler # 5 tripped off-line and 1054M, B/H of steam was lost. Mistrans (X-ray) crew was scheduled to X-ray F/G piping at #6 Boiler. The switch labeled "Boiler Bypass" was activated and not the Flame scanner by pass switch. Mistrans set up and proceeded to X-ray and when they started, #5 boiler tripped off-line.	Operational Process/Procedures	(1) Switches on BISS Panel/labeling caused confusion. (2) Check list PPLC4526 should be a procedure for critical tasks.
34520	Richmond, CA - Refinery	3/6/2012	12:00:00 PM	Closed	Loss	Delays in execution of TP-264 work.	1 Week of 2/27 scheduled TP-264 for install in the field with pickers for Weld, however not set to be complete at the ship till Wed. afternoon. 2 Pickers schedule was full on Thursday	Business Process	(1) Pickers scheduled for Wed. however unable not scheduled to be complete at ship till Wed. Attention a Scheduler scheduled the work assuming that the job would be done all noon Wed. and that the Scheduler would be a time to be complete. Scheduler did not receive information from shop that the turnline would not be complete till Wed. and of shift. Use of communication on ETC when not all of the information had been analyzed to determine an accurate ETC
34594	Richmond, CA - Refinery	3/26/2012	3:45:00 PM	Closed	Near Loss	Transfield accident! discharge of air horn.	Transfield. EE while climbing a ladder, brushed an obstruction with his back, pack activating the air horn. This caused a cold sensation to a spot on his back.	NL-Injury/Illness - Contractor Injury	
34645	Richmond, CA - Refinery	3/27/2012	10:00:00 AM	Closed	Loss	The access key to the panel lock on top of the 12A control box is in the lock. This control box is the unit which houses the motor assembly for the inbound vehicle gate #124.	The access key to the panel lock on top of the 12A control box broke off in the lock. This control box is the unit which houses the motor assembly for the inbound vehicle gate #124.	Equipment/Property Damage	(1) The key broke off into the lock because the lock was a little sticky. The key was sticky because it hasn't been maintained because it is not used often.
34654	Richmond, CA - Refinery	3/23/2012	8:00:00 AM	Closed	Loss	Company Vehicle damaged (tip-lop and phone)	Company vehicle was parked off site. Rear passenger window and company laptop computer and phone were stolen.	Equipment/Property Damage	(1) Public Affairs team member left company laptop and iPhone on the seat of the company-leased car while he went into a store. He judged that since he was going to be in the store for less than 15 minutes, that it was a busy intersection and early in the morning, that the risk of theft was low.
34731	Richmond, CA - Refinery	3/28/2012	8:30:00 AM	Closed	Near Loss	Green Card. Delivery trucks making dangerous turn. Location: Richmond Pkwy/Gale 31	Green Card. Chevron delivery trucks weaving down Richmond Pkwy make a wide right turn as they enter the street heading to Gale 31. Both times I witnessed, scared for my life, as the trucks missed hitting and injuring/killing us as we were traveling in a Chevron car. This is a major safety issue which is a concern for future injury or kill someone. Location: intersection of Richmond Pkwy/Gale 31	NL-Transportation - Company	
34746	Richmond, CA - Refinery	3/29/2012	6:30:00 AM	Closed	Near Loss	Tipped over small container of Sulfuric Acid	While operator was performing the task of changing out the bottles for the temporary sulfuric acid drainage system, the container tipped over and spilled ~ 1 cup of sulfuric acid into the drainage system.	NL-Environmental - Spill	(1) Design
34746	Richmond, CA - Refinery	3/29/2012	8:00:00 AM	Closed	Near Loss	BPR needed additional	BPR required special power, and it was not adequately conveyed to the Planning and Scheduling group when the generators were ordered and permits pulled. Power was procured at last moment, but possibility of the necessity of rescheduling the BPR if power was not available and all the costs associated		(1) 5 Why Investigation The crew was asked to install equipment for the Business Plan Rollout that was not adequate for the needs of the vendor. 1. Crew installed the electrical equipment request on the work order, the request was incorrect. 2. Why did 1 happen? Work request did not include the information from vendor on power needs for event to even coordinator. 3. Why did 2 happen? The event coordinator did not provide shop supervision to discuss power to the crew. He thought the shop supervision was provided to him Root Cause There was not adequate information supplied to the planners, or the crews to properly plan work, get the necessary permits, and install the equipment needed. - (2) 5 Why Investigation The City Inspector should own the power to the Business Plan Rollout, because the equipment did not match the permit request and the wife size the vendor supplied was too small for the generator was not protected by the generator main breaker 1. The wife that the vendor required for their equipment was too small for the main breaker on the larger size generator, and the crew did not supply a protective device between the generator breaker and the vendor's wire. 2. Why did 1 happen? The crew did not have the equipment to cut wire to protect the wire Root Cause The crew did not have equipment to protect the wire, required by code, and crew did not do their pulse work to

34764	Refinery	AM	Closed	Loss	power	constituted the near-loss	NI-Lessons Learned	acquire correct equipment
	Richmond, CA - Refinery	3/29/2012 11:00:00 AM	Closed	Near Loss	Green Card, EEE discovered a can of leaking. The can appears to have been crushed during shipment. Leaking location: Electric Shop	Green Card, Employee discovered a one gallon can of denatured alcohol in the point-of-use area of the cage which had been severely crushed and was leaking. The can appears to have been crushed during shipment. Leaking location: Electric Shop	NI-Environmental - Spill	
34773	Refinery	3/29/2012 11:45:00 AM	Closed	Near Loss	H2S Exposure, unknown source, (14 ppm exposure)	While working in a shallow excavation, a workers personal H2S monitor alarmed.	NI-Injury/Illness - Contractor Injury	(1) H2S release
34779	Refinery	3/29/2012 11:45:00 AM	Closed	Near Loss	H2S Exposure, unknown source, (14 ppm exposure)	While working in a shallow excavation, a workers personal H2S monitor alarmed.	NI-Environmental - Release	(1) H2S release
34833	Refinery	3/21/2012 12:00:00 AM	Closed	Near Loss	Private Data Left in Common Conference Room	Private data from a management meeting was placed on chair next to computer/presenter table. Was not collected upon leaving meeting. Data was discovered on 3/26 and returned to owner.	NI-Business Process	(1) H2S release (1) FIVE WHY'S 1. Why did "above" happen? Verification Individual did not review workspace appropriately and incorrectly before leaving the conference room. 2. Why did "1" happen? Individual reviewed workspace and conference table before leaving but did not look in chair behind where sitting as chair is not normally used to hold data. 3. Why did "2" happen? Used chair to hold slides as workspace where computer was did not allow enough room to hold required materials and allow space to take notes. 4. Why did "3" happen? First time in this conference room conducting this type of meeting where taking notes, actions, etc is required. Normally in 316 where workspace is adequate at computer desk. 5. Why did "4" happen? Awareness when placing the documents on the chair that there was risk of forgetting them since not part of normal process. Thought to make a note to remind myself but did not proceed with meeting believing I would not forget. ROOT CAUSE: What was the Root Cause of your incident? Recognized risk, thought about actions to remove risk but did not act upon it. LPS Factor: B
34860	Refinery	3/30/2012 8:30:00 AM	Closed	Near Loss	Unscheduled delivery of exchanger bundle	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. Unscheduled delivery of exchanger bundle on Friday when limited equipment and staff are available to support. So there was not appropriate personnel and equipment ready to offload it. The bundle was offloaded using a forklift. Bundle was approximately 14000 lbs. and valued at over \$200,000. Ordinarily, a crane and rigging are involved in the offloading of material of this nature.	NI-Business Process	(1) Unscheduled delivery of Exchanger Bundle by outside company. (2) Some employees used stop work authority because they were unaware that 10-Ton Forklift Can be Used to Safely Unload Bundle
34860	Refinery	3/30/2012 8:30:00 AM	Closed	Near Loss	Unscheduled delivery of exchanger bundle	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. Unscheduled delivery of exchanger bundle on Friday when limited equipment and staff are available to support. So there was not appropriate personnel and equipment ready to offload it. The bundle was offloaded using a forklift. Bundle was approximately 14000 lbs. and valued at over \$200,000. Ordinarily, a crane and rigging are involved in the offloading of material of this nature.	NI-Business Process	(1) Unscheduled delivery of Exchanger Bundle by outside company. (2) Some employees used stop work authority because they were unaware that 10-Ton Forklift Can be Used to Safely Unload Bundle
34888	Refinery	3/31/2012 2:30:00 AM	Closed	Loss	During start up of C-100 Mod., lifted PRD safety.	Relief for C-140 had been replaced. While preparing to startup C-100 Mod., the PRD start lifting again and some leakage from the bellows was observed.	Operational Process/Procedures	(1) Overpressured C140 lifted PRD - bellows failed Why - Increasing pressure in C140 Why - Increasing pressure on C140 was due to 2 plugged passes on E-140 Why - modified startup procedure called for not flushing system with DAO to facilitate a quicker startup after PSV replacement. (2) Possible N2 purge left in, but looking at trends (attached to incident checklist) pressure had dropped to 6.8 PSI prior to starting DAO from C130 to C140. If N2 was left in it could have only been a slight purge. Need to be 100% sure step in procedure is complete before signing off.
34888	Refinery	3/31/2012 2:30:00 AM	Closed	Loss	During start up of C-100 Mod., lifted PRD safety.	Relief for C-140 had been replaced. While preparing to startup C-100 Mod., the PRD start lifting again and some leakage from the bellows was observed.	Operational Process/Procedures	(1) Overpressured C140 lifted PRD - bellows failed Why - Increasing pressure in C140 Why - Increasing pressure on C140 was due to 2 plugged passes on E-140 Why - modified startup procedure called for not flushing system with DAO to facilitate a quicker startup after PSV replacement. (2) Possible N2 purge left in, but looking at trends (attached to incident checklist) pressure had dropped to 6.8 PSI prior to starting DAO from C130 to C140. If N2 was left in it could have only been a slight purge. Need to be 100% sure step in procedure is complete before signing off.
34988	Refinery	3/31/2012 2:30:00 AM	Closed	Loss	During start up of C-100 Mod., lifted PRD safety.	Relief for C-140 had been replaced. While preparing to startup C-100 Mod., the PRD start lifting again and some leakage from the bellows was observed.	Environmental	(1) Fec Isolator tripped due to flow from C-140 PSV Bypass during SDA, 100 module startup. Why was PSV Bypass opened? PSV Bypass was opened due to increasing pressure on C-140. Why was there increasing pressure on C-140? Increasing pressure on C-140 was due to 2 plugged passes on E-140. Why were there 2 plugged passes on E-140?

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34932	CA - Refinery	3:00:00 PM	Closed	Loss	FCC totalizer trip on SDA 100 module startup	passes of E-140's were plugged. These fin fan exchangers Control C-140 pressure and were stuck the night before.	Operational Process/Procedures	Modified Startup procedure called for not flushing system with DAO to facilitate a quicker startup after PSV replacement.
35017	Richmond, CA - Refinery	3/26/2012 8:00:00 AM	Closed	Near Loss	Green Card, Blind corner while walking. Location: Admin Bldg	Green Card. As I was approaching a sharp corner on the second floor of the Admin Bldg, I heard footsteps approaching. I slowed down to ensure I would not run into the approaching person. The person rounded the corner with a full cup of coffee in hand, saw me and stopped quickly. A large portion of the coffee was spilled. Luckily, not on either one of us.	NL-Lessons Learned	(1) K-920 shut down when the connected electricians opened the back left door of the control panel. This caused a interruption in control power which tripped down the breaker/sharer. WHY? The control panels have a very old system consisting of loose wires and electrical contacts. WHY? They are not presently included in a PM program. WHY? This kind of interruption was not anticipated before. WHY? Work direction had been handled this way in the past and no incident had occurred. There was a verbal request to not work in the panels until a covey was placed. This was a precaution to avoid opening of the panels. The request was not put in the job scope or work order.
35022	Richmond, CA - Refinery	4/22/2012 11:15:00 AM	Closed	Loss	K-920 Unleashed shutdown	During project to install turbine oil system the contractor electricians inadvertently turned a lever causing the compressor to shut down. The electricians thought the lever was the handle to open the control box.	Operational Process/Procedures	(1) The list of cold traps is not resolved unless a Maximo Work Request is initiated. In most cases we only resolve the top 20% of those that are bad order.
35068	Richmond, CA - Refinery	4/2/2012 1:50:00 AM	Closed	Near Loss	Severe water hammer on 15 lb. steam line inside #1 Pipelines at 21 Pump Station shutdown due to manpower shortage	The 15 lb. steam header (approx 100') from #1 & #2 flash tanks and atmospheric tanks was moved vertically approx 4 - 6 inches & horizontally approx 6 - 8 inches due to severe water hammer.	NL-Business Process - Business Process	(1) This incident occurred because current Assurance Control Policy needs revision to improve accountability. (2) Deleted hiring of Operators
35073	Richmond, CA - Refinery	4/2/2012 6:00:00 PM	Closed	Loss	The pipelines at 21 Pump Station (BAPL & KHA) were shutdown for night shift Operator to have to work the SP Hill job.		Business Process	
								(1) On April 02, 2012 at 12:38, AM 25 reported having received a data frame error from PLCG 53. At the same time, GUS 01, which is the cable administrator, indicated that LCN 53 was silent, indicating that something had gone wrong with Cable A. The incident was investigated and the wrong communication was switched to cable B and the blown ring was re-established. I'm going to assume here that the problem node 53, didn't release the communication token, which caused the network to go silent. At 12:38:39 - APP 25 went into waiting since it was unable to retrieve any data from EPLCG 53 as it was not responding on multiple retries. At 12:40:51 - APP 59 also goes in waiting for the same reasons, no response from EPLCG 53. At 12:40:50 - All LCN nodes report a Watch Dog Timeout against EPLCG 53 indicating that it had not responding on the LCN network for about 2 minutes. At 12:40:51 - The LCN node administrator isolated the EPLCG 53 from all LCN nodes on the LCN network. This will happen when a node has not been responding on the network for about 2 minutes. So what happened was the EPLCG 53 was not responding on the LCN network and showed no indication of failure other than sending a bad response to APP 25. The events which we cannot explain at this time is: - We do not get a line stamp for when the Cable A went bad at 12:38:31. The event recorded was it was Acknowledged. - The K&LCH had a fault LED indicating a hardware fault although the node address was still displayed on the card. Typically the node address gets replaced with the error code. I logged a case with Honeywell and we discussed this event in more details. We all think that this could have been triggered by hardware fault in the EPLCG node 53. The bad thing, we don't have enough data to help us be specific as to what was the root cause. Honeywell has indicated having seen a similar case in the past where the diagnosis was the problem. The EPLCG 53 is running in a Dual mode card
35108	Richmond CA - Refinery	4/2/2012 12:38:00 PM	Closed	Near Loss	Non Redundant HG failure	EPLCG (Hwy 12) became isolated causing loss of view to K1420	NL-Business Process - Business Interruption	
35127	Richmond CA - Refinery	3/30/2012 11:45:00 AM	Closed	Near Loss	Green Card, Smoke alarm sounded after using toaster. Location: Admin Bldg	Green Card, Smoke alarm sounded in the Admin Bldg. I was leaving a bagel toaster, the alarm sounded. Location: Admin Bldg, 4th fl.	NL-Fire/Explosion	
35138	Richmond, CA - Refinery	4/2/2012 1:00:00 PM	Closed	Near Loss	Jumping off dock down at the counter	I was walking from the mach shop when I saw a person jumping off the dock. I yelled for the person to stop but was to late. No injury to the person.	NL-Injury/Illness - Contractor Injury	
								On 3/8/12 at approximately 1215 the PCN Backup Server lost connection to the PCN Storage Area Network (SAN) LUN that is located on SATIBEAST 02. This 14 mass storage units configured as a logical drive on the PCN Backup

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35272	Richmond, CA - Refinery	3/6/2012 12:15:00	PM	Closed	Near	Backup Tank for PCN APPROX 625 Gallons of Sulfidic Caustic leaked from recovery failed validation near and of	Server and physically resides within the Refinery Admin building Data Center. This storage unit holds the online portion of the Richmond PCN Backup repository and is available for authorized PCN users to manage their production System Image files. It was during this time that an ON-Demand manually configured Acronis backup of the SRU APPNode (CON Node 63) was being conducted. This particular APPNode is designated for backing up the OPC environmental values generated at SRU. This backup undertaking was part of the PCN Administrators LPSA back-out plan, prior to implementing a scheduled IP address change. This entire effort is part of the PCN Network communication switch upgrade project. At the time of the incident, the backup task had already completed and was in its final stages of execution; resultant validation progress. Subsequent attempts to re-validate the file had failed until it was discovered that the storage was no longer available. During this time, it could not be ascertained if the images the generated could be used to positively recover the system from an unexpected software malfunction that the Control System Analysis was experiencing. After the loss of connectivity, the recovery team could not be implemented to restore the images to the pre-change state because the backup file was unavailable. The total unplanned outage lasted approximately 3 hours.	NL - Business Process Interruption	(1) Why? Unable to get the backup from the SATABEAST2 to restore APPNode. Why? SATABEAST2 was being moved and was unavailable. Why? Notification to PCN team was not communicated. Why? SATABEAST Administrator used old group notification list instead of current one.
35224	Richmond, CA - Refinery	4/4/2012 7:00:00	AM	Closed	Loss	MVA	I received a phone call from RTD this morning informing me that we had a new truck on loan to us for the last couple of weeks and it was returned to RTD yesterday with a dent in the passenger side door. No one on crew reported damage to supervisor. No one reported being involved in an MVA. Truck was parked in back of shop during off shift hours with key in ignition.	Equipment/Property Damage	(1) 6 Why Investigation Electric shop was having one of its pick-up trucks serviced. While the truck was being serviced a loaner truck was provided. When the loaner truck was returned it was found to have been involved in a MVA that was not reported to the electric shop supervisor. 1) Why was the MVA not reported to the supervisor? Employee stated he feared that reporting the MVA would compromise his employment. 2) Why did employee fear reporting the MVA would compromise his employment? Employee had recently returned to work after being away for over a year. (2) 5 Why Investigation Employee reported vehicle involved in an MVA. 1) Why was the vehicle involved in an MVA? Employee stated the vehicle too sharply while making a right hand turn and the concrete wall. 2) Why did employee turn the vehicle too sharply? Employee stated he lost his focus while stopped at a stop sign just before making the turn. 3) Why did employee lose his focus while driving? While waiting at the stop sign employee allowed his mind to wander and this caused his loss of focus.
35226	Richmond, CA - Refinery	4/4/2012 12:00:00	AM	Closed	Loss	Sulfidic Caustic leaked from a vacuum truck staged overnight at the NYCP. The truck was staged at the pad due to presence of hydrocarbon created an incompatibility with the poly tank designated as the off load location.	Environmental	(1) Why did the vacuum truck develop a leak over night? There was an aluminum cancock cap placed over the 4 inch valve and it fell off when exposed to caustic over a prolonged period. The aluminum cap is not used at the Richmond refinery, all vacuuming and offloading is done through the outlet valve. The fitting appeared to be of carbon steel construction. Why hadn't the fitting been removed to see if it in fact was carbon steel? There was not a system in place to check for matching of that fitting.	
35269	Richmond, CA - Refinery	4/6/2012 9:00:00	AM	Closed	Near	Hydrocarbon on ground at TEL injection facility	NL - Environmental - Spill	(1) Why did PRDs go overdue - maintenance was delayed in planning and scheduling the replacement. Why - maintenance was not aware that the PRD replacement could be completed On the run. Why - PRDs were marked as not available on the run in Metcalf and feedback was not given to maintenance that the PRDs were indeed available on the run. Why - lack of clear communication to operations prevented complete understanding of condition needed for maintenance on "not available OTR" PRDs Why - there was not one person position assigned to track completion of PRDs labeled as "not available OTR"	
35273	Richmond, CA - Refinery	4/2/2012 12:00:00	AM	Closed	Near	2 overdue PRDs in B plant	NL - Operational Procedures - Pressure Relief Devices (PRD)	(1) Been awhile since firefighter performed skill	
35353	Richmond, CA - Refinery	4/6/2012 2:30:00	PM	Closed	Loss	Firefighter injured during training	Injury/Illness	(1) Been awhile since firefighter performed skill	
35353	Richmond, CA - Refinery	4/6/2012 2:20:00	PM	Closed	Loss	Firefighter injured during training	NL - Injury/Illness - Employee Injury	(1) Been awhile since firefighter performed skill	

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35447	Richmond, CA - Refinery	4/8/2012 2:00:00 PM	Closed	Near injury in process.	mechanical advantage on the valve, the operator proceeded to stand on top of the valve and operate the valve. They were unable to judge the risks associated with this action and proceeded to use the valve in a manner not intended for operations. This task does present a significant risk to the health and safety of the operator as a working surface. Stop work authority was used and the task was completed with two operators using two parameters in order to mitigate the risk of the valve working free resulting in a fall injury.	NI-Injury/Illness - Employee Injury	(1) K-1600 unloader when the 24 volt DC main fuse blew that powered all three loader solenoids. WHY - After a new 100% loader solenoid was installed it did not activate so the Mechanics began troubleshooting with the 24 volt DC circuit energized and shorted out the circuit blowing the main fuse to all three of loader solenoids. WHY - 5-year Mechanics did not understand the wiring of the circuit, a copy of an electrical drawing showing the wiring was not available for reference during the work. (2) The 24 volt DC circuit was not properly documented. Redlined updates were not incorporated into the electronic drawings on Web and not available to mechanics. (2) K-1600 unloader when the 24 volt DC main fuse blew that powered all three loader solenoids. WHY - After a new 100% loader solenoid was installed it did not activate so the Mechanics began troubleshooting with the 24 volt DC circuit energized and shorted out the circuit blowing the main fuse to all three of loader solenoids. WHY - 5-year Mechanics did not have a clear understanding of the circuit, a copy of an electrical drawing showing the main fuse nor knew its physical location. WHY 2) - Lack of skill or knowledge
35463	Richmond, CA - Refinery	4/8/2012 2:08:00 PM	Closed	Loss to a blown fuse	On Monday, Apr. 8 2012, IBE were in the process of troubleshooting and repair loader relay 801Y1809. At 14:38 OWS 5 called to AOC operator to verify K-1600 was running without issues. OWS6 had lost all a flow indication for K-1600. AOC responded to OWS5 that the compressor was running and sounded normal. OWS6 responded to K-1600 to verify instrument air supply had not been interrupted. Compressor unloader due to loss of power to the loader relays.	Business Process	(1) Operators observed fluid in the 1st stage bottle sight-glass and drained it prior to startup. Although liquid was likely present in the second stage dampener/bottles, operators did not drain it as there are no sight glasses or alarm instruments to indicate or alert operators personnel to potential liquids. Removing all liquid from K-1171A is critical for safe compressor operation. (2) Operator followed the existing Job Aid to prepare K-1171A for startup and to put it into service, however, it does not describe each step and provide the operating criteria. Connecting the RER or Mechanical supervisor would have been an additional way to address the abnormal condition. (3) Compressor K-1171A does not have a bar-over or jack-over device to verify liquid-free cylinders. A bar-over device could be retrofitted to the compressors fly-wheel and included in the startup procedures. (4) The 1st stage bottle sight-glass should be located at the top of the bottle so that operators can see the liquid level. The sight-glass should have an internal vent to limit the amount of liquid that could have built up and subsequently vented into the K-1171A 2nd stage cylinder. (5) Back-flow of fluids at the first and second stage suction and discharge bottle drain connections is plausible since there are no check valves in the drain piping configuration that would prevent valve seats leaking by. (6) The K-1171A breaker tripped during the first start attempt at 10:06pm; however, there is no means to record the motor current at each machine relative to their full-load amp ratings. The compressor could have already been internally weakened at the initial overload trip at 10:06pm, and subsequently failed (10:30pm) after the second start without reaching an overload condition. (7) The prior design of the K-1171A compressor valves were prone to multiple issues that resulted in valve pieces damaging the compressor cylinders; therefore, they were recently upgraded to the more
35494	Richmond, CA - Refinery	4/10/2012 6:50:00 PM	Closed	Loss split	K-1171A was being put service to ensure Ops had a reliable back up for K-1171. K-3950 (reliab compressor) was being taken down for maintenance and K-1171 was now in the service. Before Ops started the compressor area was checked for any alarms associated with K-1171A and used Job Aid 4C10C13. The operator then started the compressor and called for an electrician to respond and reset the MCC. The Operator started the compressor with the suction blocked in. The cracked open the suction valve the compressor shut down. There were no alarms to indicate why it shut down. The HO went out and talked with area operator, and the electrician about why it shutdown. There were no alarms on the electrician checked and reset the compressor in the MCC again. The HO checked the 1st stage sight glass, it was open to relief. The outside operator had the suction valve blocked in and the HO pressed the start button. The compressor came on line, the HO had the area operator crack the suction off its seal. The HO was watching the 1st stage bottle sight glass, it was showing some of liquid accumulation. The HO opened the block valve to relief on the 1st stage bottle more to make sure all the liquid was going to relief and not accumulating in the suction bottle. The suction bottle sight glass had maybe 4 inches of liquid in it and holding steady. The HO kept watching it and had the area operator open the suction valve a small amount more. The compressor sounded normal and had no indication of any issues. Ops then heard the compressor split and saw a plume of relief gas coming from the 2nd stage and the HO went out and checked the 1st stage bottle sight glass. The HO then went around the compressor to check for any emergency response. The HO then went around the compressor to check for any emergency response, and saw that the compressor was still running. The HO had a split pin in the 1st stage and shut it down and closed the discharge valve and put the compressor in a safe position.	Loss of Containment	(1) Operators observed liquid in the 1st stage bottle sight glass and drained it prior to startup. Although liquid was likely present in the second stage dampener/bottles, operators did not drain it as there are no sight glasses or alarm instruments to indicate or alert operators personnel to potential liquids. Removing all liquid from K-1171A is critical for safe compressor operation. (2) Operator followed the existing Job Aid to prepare K-1171A for startup and to put it into service, however, it does not describe each step and provide the operating criteria. Connecting the RER or Mechanical supervisor would have been an additional way to address the

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35494	Richmond, CA - Refinery	4/10/2012 8:30:00 PM	Closed	Loss	K-1171A 2nd stage head	operator and HO tested all the alarms associated with K-1171A and used Job aid 4CUp013. The operator initially attempted to start it, it would not start. Ops called for an electrician, they responded and reset the compressor in the MCC. The Operator started the compressor with the suction blocked in. As the cracked open the suction valve, the compressor shut down. There were no alarms to indicate why it shut down. The HO went out and talked with area electrician and the electrician checked and reset the compressor in the MCC again. The HO checked the 1st stage sight glass. It was open to relief. The outside operator had the suction valve blocked in and the HO pressed the start button. The compressor came on line, the HO had the area operator crack the suction off the seal. The HO was watching the 1st stage bottle sight glass. It was showing some of liquid accumulation. The HO opened the block valve to relief on the 1st stage bottle more to make sure all the liquid was going to relief and not accumulating in the suction bottle. The suction bottle sight glass had maybe 4 inches of liquid in it and holding steady. The HO kept watching it and had the area operator open the suction valve a small amount more. The compressor sounded normal and had no indication of any issues. Ops then heard the compressor spill and saw a plume of relief gas coming from the 2nd stage and called plant protection for emergency response. The HO then went around the compressor to block in the discharge valve, and saw that the compressor was still running. The HO had a safe path to the on button shut it down and closed the discharge valve and put the compressor in a safe posture.	Environmental	(1) Operators observed liquid in the 1st stage bottle sight glass and drained it prior to startup. Although liquid was likely present in the second stage damper boilies, operators did not drain it as there are no sight glasses or alarm indicators to indicate or alert operators personnel to potential liquids. Removing all liquid from K-1171A is critical for safe compressor operation. (2) Operators followed the existing Job Aid to prepare K-1171A for startup and to put it into service; however, it does not describe each step and provide the sequence of steps. The existing Job Aid may indicate the abnormal condition. (3) Compressor K-1171A does not have a bar-over or back-over device to verify liquid-free cylinders. A bar-over device could be retrofitted to the compressor fly-wheel and included in detailed startup procedures. (4) Typical compressor suction and discharge boilies of this age have an internal vent to limit the amount of liquid that could enter the cylinder during normal operation. Upgraded liquid could have been vented to the atmosphere. (5) Backflow of liquids at the first and second stage suction and discharge bottle drain connections is plausible since there are no check valves in the drain piping configuration that would prevent valve seats leaking by. (6) The K-1171A breaker tripped during the first start attempt at 10:05pm. However, there is no means to record the motor current at each machine relative to their full-load amp ratings. The compressor could have already been internally weakened at the initial overload trip at 10:05pm, and subsequently failed (10:30pm) after the second start without reaching an overload condition. (7) The prior design of the K-1171A compressor valves were prone to misalign issues that resulted in valve pieces damaging the compressor cylinders; therefore, they were recently upgraded to the more
35494	Richmond, CA - Refinery	4/10/2012 8:30:00 PM	Closed	Loss	K-1171A 2nd stage head	K-1171A was being put service to ensure Ops had a reliable back up for K-1171. K-395C relief compressor was being taken down for maintenance and K-1171 was now in this service. Before Ops started the compressor area operator and HO tested all the alarms associated with K-1171A and used Job aid 4CUp013. The operator initially attempted to start it, it would not start. Ops called for an electrician, they responded and reset the compressor in the MCC. The Operator started the compressor with the suction blocked in. As he cracked open the suction valve, the compressor shut down. There were no alarms to indicate why it shut down. The HO went out and talked with area operator, and the electrician about why it shutdown. There were no alarms so the electrician checked and reset the compressor in the MCC again. The HO checked the 1st stage sight glass. It was open to relief. The outside operator had the suction valve blocked in and the HO pressed the start button. The compressor came on line, the HO had the area operator crack the suction off the seal. The HO was watching the 1st stage bottle sight glass. It was showing some of liquid accumulation. The HO opened the block valve to relief on the 1st stage bottle more to make sure all the liquid was going to relief and not accumulating in the suction bottle. The suction bottle sight glass had maybe 4 inches of liquid in it and holding steady. The HO kept watching it and had the area operator open the suction valve a small amount more. The compressor sounded normal and had no indication of any issues. Ops then heard the compressor spill and saw a plume of relief gas coming from the 2nd stage and called plant protection for emergency response. The HO then went around the compressor to block in the discharge valve, and saw that the compressor was still running. The HO had a safe path to the off button shut it down and closed the discharge valve and put the compressor in a safe posture.	Equipment/Property Damage	(1) Operators observed liquid in the 1st stage bottle sight glass and drained it prior to startup. Although liquid was likely present in the second stage damper boilies, operators did not drain it as there are no sight glasses or alarm indicators to indicate or alert operators personnel to potential liquids. Removing all liquid from K-1171A is critical for safe compressor operation. (2) Operators followed the existing Job Aid to prepare K-1171A for startup and to put it into service; however, it does not describe each step and provide the sequence of steps. The existing Job Aid may indicate the abnormal condition. (3) Compressor K-1171A does not have a bar-over or back-over device to verify liquid-free cylinders. A bar-over device could be retrofitted to the compressor fly-wheel and included in detailed startup procedures. (4) Typical compressor suction and discharge boilies of this age have an internal vent to limit the amount of liquid that could enter the cylinder during normal operation. Upgraded liquid could have been vented to the atmosphere. (5) Backflow of liquids at the first and second stage suction and discharge bottle drain connections is plausible since there are no check valves in the drain piping configuration that would prevent valve seats leaking by. (6) The K-1171A breaker tripped during the first start attempt at 10:05pm. However, there is no means to record the motor current at each machine relative to their full-load amp ratings. The compressor could have already been internally weakened at the initial overload trip at 10:05pm, and subsequently failed (10:30pm) after the second start without reaching an overload condition. (7) The prior design of the K-1171A compressor valves were prone to misalign issues that resulted in valve pieces damaging the compressor cylinders; therefore, they were recently upgraded to the more
35509	Richmond, CA - Refinery	3/20/2012 9:00:00 AM	Closed	Loss	Green Card, Overhead alarm bell, Location: S. Isomex K-1060	Green Card, Overhead alarm bell and lots of condensate in walkway. The leak needs scaffold and insulation removed. Location: S. Isomex K-1060	NL-Lessons Learned	
35510	Richmond, CA - Refinery	3/29/2012 1:00:00 PM	Closed	Loss	Green Card, D-902A is overfilling and leaking oil oil, Location: S. Isomex	Green Card, When I was walking out to E-930B, I saw D-902A was overfilling and leaking out oil and it is in the walkway. Location: S. Isomex	NL-Lessons Learned	
35511	Richmond, CA - Refinery	3/29/2012 1:00:00 PM	Closed	Loss	Green Card, Oil on ground by E-741, Location: FCC	Green Card, When working at FCC Cal, I noticed oil on the ground by E-741. Location: FCC E-741	NL-Lessons Learned	
35512	Richmond, CA - Refinery	3/29/2012 8:00:00 AM	Closed	Loss	Green Card, Topping and Near fail hazard, Location: BAS by E-44	Green Card, When doing work by the exchanger, I noticed there is a topping and fail hazard - a hole in the ground. Location: BAS, by E-44.	NL-Injury/Illness - Employee injury	(1) We had a opacity violation at the FCC F-300 stack. The V was entered. The operator was setting up to dump V-13 into vessel to a vac. Truck. When the vacuum block valve was

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36636	Richmond, CA - Refinery	4/12/2012 12:00:00 AM	Closed	Near - Jug bottles ordered from wrong vendor	Loss	Graham moved their facility from Richmond, CA to Modesto, CA. Graham is the regular supplier of gallon jug bottles to RLP. Although during this transitional period, RLP was contracted to safety gallon jug bottles inventory to RLP. The vendor number assigned to them was 36636. Graham was not engaged in the coordination of the transfer of the inventory. RLP was able to avoid any disruption to operations. The RLP POPs Buyer was able to purchase empty bottles, places all purchase orders with SAP against respective supplier for bottle inventory. All suppliers, including Graham and PPK, have a vendor number assigned to them. The vendor number is pre-populated on the SAP purchase order. As RLP internally receives bottles from Graham the Graham vendor number is pre-populated in SAP on purchase orders specific to purchases for bottles. A decision was made by the Procurement Operations Houston team to not have the vendor numbers changed in SAP resulting in a manual work around by the RLP POPs Buyer. The work around required the RLP POPs Buyer to manually change the vendor number each time a purchase order was processed for bottles. An email was received by the RLP POPs Buyer regarding an upcoming fill requesting a purchase of bottles. The RLP POPs Buyer placed an order 3/1 Delio 10W30 gallon jugs (component code 58004695) to accommodate the fill scheduled to take place on 4/13. Per process, the Buyer went into OCS to enter the components and the order defaulted to the SAP vendor number assigned to Graham. During a weekly engagement with Graham, facilitated by the Houston Procurement Ops team, Graham confirmed that they would be unable to supply this order to RLP, requesting that the order be redirected to PPK. The POPs Buyer did not have the vendor number in SAP OCS to the vendor number assigned to PPK. PPK contacted the Houston team of the Highlands on 4/17 for plant receipt on 4/25 to accommodate the scheduled fill of 4427. This near miss resulted in zero down time on the jug line and no customer calls. It has been confirmed that Graham Modesto is now fully servicing RLP with gallon jug bottles and PPK Highlands is no longer required to provide routine bottle supply to RLP.	NL - Business Process - Business Process	Houston resulting manual work processes by RLP POPs Buyer to change vendor number in SAP. RLP POPs Buyer did not make the manual change to the SAP vendor number resulting in purchase order misdirection to the wrong supplier.
36636	Richmond, CA - Refinery	4/12/2012 12:00:00 AM	Closed	Near - Jug bottles ordered from wrong vendor	Loss	Graham moved their facility from Richmond, CA to Modesto, CA. Graham is the regular supplier of gallon jug bottles to RLP. Although during this transitional period, RLP was contracted to safety gallon jug bottles inventory to RLP. The vendor number assigned to them was 36636. Graham was not engaged in the coordination of the transfer of the inventory. RLP was able to avoid any disruption to operations. The RLP POPs Buyer was able to purchase empty bottles, places all purchase orders with SAP against respective supplier for bottle inventory. All suppliers, including Graham and PPK, have a vendor number assigned to them. The vendor number is pre-populated on the SAP purchase order. As RLP internally receives bottles from Graham the Graham vendor number is pre-populated in SAP on purchase orders specific to purchases for bottles. A decision was made by the Procurement Operations Houston team to not have the vendor numbers changed in SAP resulting in a manual work around by the RLP POPs Buyer. The work around required the RLP POPs Buyer to manually change the vendor number each time a purchase order was processed for bottles. An email was received by the RLP POPs Buyer regarding an upcoming fill requesting a purchase of bottles. The RLP POPs Buyer placed an order 3/1 Delio 10W30 gallon jugs (component code 58004695) to accommodate the fill scheduled to take place on 4/13. Per process, the Buyer went into OCS to enter the components and the order defaulted to the SAP vendor number assigned to Graham. During a weekly engagement with Graham, facilitated by the Houston Procurement Ops team, Graham confirmed that they would be unable to supply this order to RLP, requesting that the order be redirected to PPK. The POPs Buyer did not have the vendor number in SAP OCS to the vendor number assigned to PPK. PPK contacted the Houston team of the Highlands on 4/17 for plant receipt on 4/25 to accommodate the scheduled fill of 4427. This near miss resulted in zero down time on the jug line and no customer calls. It has been confirmed that Graham Modesto is now fully servicing RLP with gallon jug bottles and PPK Highlands is no longer required to provide routine bottle supply to RLP.	NL - Quality - Product Unavailable	(1) A. What? RLP missed a production fill of Delio 10W30 due to lack of bottle availability. Why? Bottles for 3/1 gallon Delio 10W30 jugs (58004695) were out of stock. b. Why? Appropriate vendor/supplier did not receive Purchase Order for bottles. c. Why? Vendors have assigned vendor numbers and purchase orders are processed through SAP with default vendor/supplier designation. Why? A decision was made to not change SAP vendor numbers by Procurement Operations Houston requiring manual work processes by RLP POPs Buyer to change vendor number in SAP. Why? RLP POPs Buyer did not make the manual change to the SAP vendor number resulting in purchase order misdirection to the wrong supplier.
35647	Richmond, CA - Refinery	4/13/2012 9:00:00 AM	Closed	Near - Duct boom struck overhead wooden structure	Loss	Removal of Duct from would bay mechanic did not notice boom was lifted when performing work from under. Vendor previously parked with boom not completely stored. When driving through gate boom caught wooden structure above. Wood broken no damage to duct.	NL - Equipment/Property Damage - General Liability	(1) Why 1 - Drove boom into overhead structure. Why 2 - Did not lower boom before moving. Why 3 - Did not notice it was parked with boom elevated. Why 4 - Did not use pre trip inspection form. Why 5 - Did not use in the past and had no problems.
35709	Richmond, CA - Refinery	3/30/2012 12:00:00 AM	Closed	Near - Started filling T-1966 before the MOC 24550 Stage II was signed off	Loss	Shifted filling T-1966 prior to the MOC 24550 being signed off in Stage II	NL - Business Process - Business Process	(1) Communication to the on shift personnel was less than adequate. (2) Communication to the on shift personnel was less than adequate. (3) Compliance with the MOC/PSR process was less than adequate.
35734	Richmond, CA - Refinery	4/16/2012 6:15:00 AM	Closed	Impacted to lower lip causing a cut to the inside of the month.	Loss	AI approximately 09:15 am, on Monday, 4/16/12, a mechanic was operating the PRD out of the air cylinder underneath the diesel pump platform at 413 separator and, while tightening a 7/8" nut on the nail flange, the wrench slipped off the nut and struck the mechanic in the lower lip, resulting in a small cut to the lower lip and slight swelling.	Injury/Illness	(1) The mechanic was in the line of fire by pulling the wrench at himself. Mechanic agrees that he should push the wrench away from himself whenever possible.
35752	Richmond, CA - Refinery	4/16/2012 12:30:00 PM	Closed	Near - EE feeling ill and taken to clinic for evaluation.	Loss	EE was feeling ill and was taken to clinic	NL - Injury/Illness - Employee Injury	(1) The ammonium chloride sublimation was not calculated correctly. 5 Why: 1. Why was the operating temperature close to and sometimes below the ammonium chloride sublimation temperature? The ammonium chloride sublimation temperature was calculated incorrectly. 2. Why was the ammonium chloride sublimation temperature calculated incorrectly? a) The initial calculated dose during the TEMA design phase used a lower ammonia concentration and daily PPHO calc did not take ammonia concentration into account. b) The calculation of the ammonium chloride sublimation temperature was not accurate. Why? 267 AM and an incorrect assumption was made. 3b. Why 267 AM incorrect calculation was used to calculate the ammonium chloride sublimation temperature. 4. Why 3a and 3b? Lack of knowledge.
35753	Richmond, CA - Refinery	4/16/2012 12:30:00 AM	Stewardship Review	Near - Conating Below NH4Cl Sublimation Temp on V-710 Overhead Piping	Loss	IL-1656 the PRD on E-1601 spiback was lifting allowing wavy feed to leak by	NL - Equipment/Property Damage - Equipment Damage	
	Richmond, CA - Refinery	4/12/2012		Safety Bypass Form not			NL - Operational	

35811	CA - Refinery	1:00:00	Closed	Near Loss	Completed when L1658 was isolated.	Process/Procedures - Safety Systems	(1) Operator was not fully aware of Bypass Safety Form usage / had not been involved in the process before.
35853	Richmond, CA - Refinery	3/24/2012 12:00:00 AM	Closed	Loss	High H2O by dkt. level in T-1699 could not be tied out to water trapped between foam dam and tank roof seal.	Quality	(1) There was no procedural job aid to define the required checks that required operators to conduct during heavy rain event of 1.2 inch per hour.
35059	Richmond, CA - Refinery	4/17/2012 12:30:00 PM	Closed	Near Loss	21 station sump over filled into containment basin.	HL-Environmental - Spill	(1) No routine monthly check done on the high level alarm.
35891	Richmond, CA - Refinery	4/17/2012 11:35:00 PM	Closed	Loss	LNC wash water flow control dropped while testing the HNC low flow drop. Causing the PRD to lift on P-1453A.	Operational Process/Procedures	(1) "FIVE WHY" One Page Report Incident Number: 35895 Business Unit: Hydro Location: RLOP Facility Name: HNC Incident date: 4/17/2012 Type of Process: Wash Water Type of Equipment: Pump P-1453A Team Members: Incident Description: What Operator testing WW low flow shutdown on HNC. Standard guidelines have the operator handpick open control valve slightly, then zero the meter. Valve slightly handpicking HNC WW, this caused the flow to dip on the LNC WW. This caused LNC to trip, causing the WW pump discharge pressure to rise. PRD lifted on P-1453A. Where (location or where in the process) HNC when: 22:30 (17/2012 How routine only alarm testing problem. Situation: When the LNC WW was tested, the PRD lifted and did not properly re-set. FIVE WHY'S: 1. Why did "above" happen? Verification Tripped LNC WW causing P-1453A discharge pressure to jump. 2. Why did "1" happen? While handpicking open the HNC WW flow dropped to LNC causing low flow drop. 3. Why did "2" happen? Standard guidelines the operators use to test these trips. 4. Why did "3" happen? When Honeywell system was put in place, procedure was not updated ROOT CAUSE: What was the Root Cause of your incident? 1. Outdated procedure 2. P-1453A PRD lifted and did not properly re-set. CPS Factor: (2) "FIVE WHY" One Page Report Incident Number: 35895 Business Unit: Hydro Location: RLOP Facility Name: HNC Incident date: 4/17/2012 Type of Process: Wash Water Type of Equipment: Pump P-1453A Team Members: Incident Description: What Operator testing WW low flow shutdown on HNC. Standard guidelines have the operator handpick open control valve slightly, then zero the meter. Valve slightly handpicking HNC WW, this caused the flow to dip on in
35891	Richmond, CA - Refinery	3/6/2012 12:00:00 AM	Closed	Loss	T-1492/1493 & T-1634 out of compliance on flash point. T-3194 out of compliance for API.	HL-Regulatory Compliance - Non Compliance - Air	(1) When the Title V permit was adopted, HES did not communicate the designated limit for the exempt tanks. (2) Develop CEVA for all regulated and exempt tanks.

35961	Richmond, CA - Refinery	3/8/2012 12:00:00 AM	Closed	Loss	T-14921/483 & T-1634 out of compliance on flash point, T-3194 out of compliance for API	below 130 degrees F around 50% of the time After identifying T-14923 as out of compliance, HES & PED did a review of all tanks that were classified as exempt tanks to find any other issues. T-1634 (UH) was found out of compliance on flash point, and T-3194 (FCC Feed) was out of compliance on API.	Regulatory Compliance	(1) When the Title V permit was adopted, HES did not communicate the designated limit for the exempt tanks., (2) Develop CEVs for all regulated and exempt tanks.
36005	Richmond, CA - Refinery	4/17/2012 10:00:00 AM	Closed	Near Loss	Green Cart, Unleak Surfaces, Location, Near Firehoses unusable	Green Cart. Several of us were parking vehicles in this area. There is a burn to park the vehicle over. However, it is difficult to see when getting in and out of one's vehicle and/or moving around one's vehicle. Location: Parking lot near Firehoses unusable on Chem Lab side of fence	NI-Injury/Illness - Employee Injury	
36035	Richmond, CA - Refinery	4/19/2012 2:30:00 PM	Closed	Loss	PARTICLE IN THE EYE	Welder grinding went to break and fell something in eye.	Injury/Illness	(1) Employee may have taken his welding hood off improperly.
36045	Richmond, CA - Refinery	4/17/2012 7:00:00 PM	Fac. Gathering	Near Loss	Loss of Power to RFMS VIM Host Server	Electrical work had been planned to replace disconnected 20 amp breakers with 30 amp breakers within 3 Breaker Panels located at the Richmond Refinery Data Center. Prior to this job task, some pre-work was performed to ensure that all equipment in the datacenter had dual power supplies with each power supply going to different power distribution units (PDUs) connected to different Breaker Panels. As the first Breaker Panel was de-energized, the RFMS VIM Host Server R1C841RFMSX2 lost all power.	NI-Business Process Interruption	(1) Shutting down power to Breaker Panel for scheduled Panel work resulted in loss of power to both power supplies on the R1C841RFMSX2 Server. Though both power supplies were plugged into different PDUs, both PDUs were connected to the same Breaker Panel.
36055	Richmond, CA - Refinery	4/20/2012 12:00:00 AM	Closed	Loss	C-180 overpressure	While putting C-180 in service the column overpressured and lifted a safety.	Operational Process/Procedures	(1) FIVE WHY'S 1. Why did "above" happen? Verification C-180 over pressured and vented to relief. 2. Why did "above" happen? Following procedure step to heat up when column pressure went high prior to the desired temperature. 3. Why did "2" happen? The column and overheat accumulator was when starting the procedure with stock. Operator believed the level to be at top of gage glass and manageable. 4. Why did "3" happen? Did not realize it was liquid packed as far as it was. Started reflux and trying to heat up column when pressure increased. 5. Why did "4" happen? Lack of operating experience and checklist wrote for an empty column.
36055	Richmond, CA - Refinery	4/23/2012 12:00:00 AM	Closed	Loss	C-180 overpressure	While putting C-180 in service the column overpressured and lifted a safety.	Environmental	(1) FIVE WHY'S 1. Why did "above" happen? Verification C-180 over pressured and vented to relief. 2. Why did "above" happen? Following procedure step to heat up when column pressure went high prior to the desired temperature. 3. Why did "2" happen? The column and overheat accumulator was not when starting the procedure with stock. Operator believed the level to be at top of gage glass and manageable. 4. Why did "3" happen? Did not realize it was liquid packed as far as it was. Started reflux and trying to heat up column when pressure increased. 5. Why did "4" happen? Lack of operating experience and checklist wrote for an empty column.
36130	Richmond, CA - Refinery	4/22/2012 1:10:00 PM	Closed	Near Loss	Had to use MK-102 to pull in messenger line for spring lines to MK-103 during handling of CSK Station. This placed a tremendous strain on the messenger line as well as placing personnel and equipment at risk.	NI-Equipment/Property Damage - Equipment	(1) There is no existing inspection program in place to regularly check corrosion on the Winches at the Long Wharf.	
36224	Richmond, CA - Refinery	4/23/2012 12:35:00 PM	Closed	Near Loss	P-3301 sour water tank tipped. Personal Monitor	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. - At 14:20 two Contractor EE's in process to access work area one Personal H2S monitor alarmed and cleared (once out of the area) Both were within 2' of each. Contractor EE personal H2S monitor alarmed and cleared - EE immediately stopped and backed out of the area. Reported the incident to HQ (Operations founded pump with plastic case leaking sour water) (Pump was isolated and area cleaned) EE's Foreman and Chevron Rep were notified. EE was with a partner (two feet apart) and both were wearing personal H2S monitors and respirators with vapor cartridge. High heat/paint vapor prevention) EE's did not smell H2S at anytime CFD was dispatched and checked Jettico EE vitals. All vitals checked out with no issues. EE did not want to visit Refinery or off site clinic or AMR. EE personal monitor reading was 15 PPM. EE was instructed to get new monitor or bump the used one. EE release back to work without restrictions.	NI-Injury/Illness - Contractor Injury	(1) Teflon diaphragm cracked. (2) Metal check valve on exhaust line too heavy for plastic threaded pump connection
								(1) Why did SISO operator injured right shoulder attempting

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[illegible]

36434	Refinery	AM	Closed	Loss	Plant shut down	went to alert state.	Damage	could be corrected and verified.
36434	Richmond, CA - Refinery	4/28/2012 12:15:00 AM	Closed	Loss	Loss of K-1400 / HMC Plant shut down	H-1400 thrust bearing probes (2), one went to danger state and the other probe went to alert state.	Operational Process/Procedures	(1) Hazard Analysis NI. The conduct/rolling used for the eddy probe cables had an excessive number of elbows without intermediate pull boxes. This was not discovered and corrected until after the incident. (2) The cables were not secured and the cables were called into the conduit during installation. Damaged insulation, water and cable contact compromise the voltage drain path. Initially and for years there was no loss of voltage but with time degradation occurred. There was initial undetected damage not affecting voltage and then progressive degradation began -not a sudden loss of signal- which eventually resulted in voltage leakage, drifting of reported axial position from the true position and the turbine trip. The initial cable insulation damage was not detectable once the cable had been pulled into the conduit. Removal of cable for inspection is impractical and counterproductive since it would only add to insulation damage. (2) Enticement NI - Corrective Maintenance on the 84V5142, thrust channel was not initiated and performed in time to correct the problem with this channel. The thrust channel repair was unsuccessful, but the outcome was not mentioned long enough to identify variance and take corrective action and perform network repairs before the trip occurred. Although the thrust channel output was questionable enough to justify condition monitoring, more provided contradicting information to the thrust eddy probes which indicated TX-1400 was not in near a danger condition and did not require a shutdown, consideration of these contradicting variables did not result in bypassing the vibration system until the accuracy of the trust channels could be corrected and verified.
36435	Richmond, CA - Refinery	4/28/2012 5:00:00 PM	In Progress	Loss	Fire on analyzer AI-993	Operations responded to fire at AI-993, 3rd stage H2 purify analyzer to RLOP	Fire/Explosion	(1) Why was there a fire in the analyzer cabinet? Because the hot valve was closed but leaked by and the second block valve was left in the open position with a breeder open. Analyzer has been in operation since 2003. It was called for replacement, but was not installed. It was to determine the cause due to the original isolation was done 9 years ago.
36455	Richmond, CA - Refinery	4/24/2012 10:00:00 AM	Closed	Loss	Green Card Catalyst on top of tank oxidized with materials while not properly supported on the opposite end causing a hanging hazard. Location: HazWaste Annex	Green Card Catalyst on top of tank oxidized with materials while not properly supported on the opposite end causing a hanging hazard. Location: HazWaste Annex	NI - Equipment/Property Damage - Equipment Damage	(1) SOS: Maintenance & Inspectors Mechanical Integrity. Valve was not listed in OEM parts illustration. Shop left vent valve out. (2) SOS: Training & Procedures: QC/Install checklist not used during installation onto tank. Checklist roles & Responsibilities not clearly defined. Mechanics overlocked the missing vent valve during installation. (3) Sidebar Issue: Maintenance & Inspectors (Mechanical Integrity). - A second leak was found the next day on a second mixer for tank T-3076. It was reported that a part had been improperly aligned and also base bolts contributed to this leak. This problem was not identified during the quality inspection of mixer. - Tank mixer assembly is not pressure tested prior to installation and responsibility for the padding during the transportation process. These parts need to be verified in the field before installation.
36453	Richmond, CA - Refinery	4/28/2012 10:00:00 AM	Closed	Loss	T-3076 Mixer Leak	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. While the operator was checking T-3076 for the 1st fill per the tank checklist it was observed that oil was coming out of the mixer shell location. About 5 gals of TKN feed type spilled into the concrete primary containment.	Quality	(1) SOS: Maintenance & Inspectors Mechanical Integrity. Valve was not listed in OEM parts illustration. Shop left vent valve out. (2) SOS: Training & Procedures: QC/Install checklist not used during installation onto tank. Checklist roles & Responsibilities not clearly defined. Mechanics overlocked the missing vent valve during installation. (3) Sidebar Issue: Maintenance & Inspectors (Mechanical Integrity). - A second leak was found the next day on a second mixer for tank T-3076. It was reported that a part had been improperly aligned and also base bolts contributed to this leak. This problem was not identified during the quality inspection and assurance process performed shortly after assembly of mixer. * Tank mixer assembly is not pressure

https://impacterm.chvron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_R8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

Richmond, CA - Refinery	4/26/2012 10:00:00 AM	Closed	T-307B Mixer Leak	Loss	COMPLETE TOP REPORT.. While the operator was checking T-307B for the first fill per the tank checklist it was observed that oil was coming out of the mixer shaft location. About 5 gals of TKN feed type spilled into the concrete primary confinement.	Environmental	(1) Work process failure allowed pump to be installed without valve. (2) Operator failed to identify the risk that the system may still be under pressure regardless what was shown on the pressure gauge.
Richmond, CA - Refinery	4/26/2012 12:00:00 AM	Closed	Oil Spill to Ground at T-310A Tank	Loss	While taking the Heater Circulation pump out of service at T-319d tank the pump was hot and electrically isolated. After deenergization the pump had to be drained. It appeared to the operator to have no pressure on the pump case and the pump was not equipped with a drain valve on the pump case. The ball plug on the pump case was removed as the only other way to drain the system at which time the pump burred gas oil under pressure to confinement.	Environmental	(1) Root Cause: Work practice / Permit N/C Causal Factors from Taproot Analysis: 1-Critical lift plan not in place 2-N/C designated spotter for boom position 3-Ground men attempt to climb on right rear of crane truck to help linemen with pole 5-No mitigation taken for 12KV lines. (2) Root Cause: Communication of SPAC N/C Causal Factors (from Taproot Analysis): 1-Critical lift plan not in place 2-Ho designated spotter for boom position. (3) Root Cause: Accountability N/C Causal Factors (from Taproot Analysis): 1-Critical lift plan not in place. (4) Root Cause: Pre-Job briefing N/C Causal Factors (from Taproot Analysis): 2-No designated spotter for boom position 3-Ground men attempt to climb on right rear of crane truck to help linemen with pole 4-Crane truck operator states that he raised boom without retracting. He was unclear of the position of boom. 5-No mitigation taken for 12KV lines. (5) Root Cause: Human Engineering Cause Factors (from Taproot Analysis): 4-Crane truck operator states that he raised boom without retracting. He was unclear of the position of boom.
Richmond, CA - Refinery	4/26/2012 12:30:00 PM	Stewardship Review	Electrical contact with PGE overhead powerline	Loss	The task involved the pole topping of the existing pole line for TLV 1212 at Pole 4038. While loading pole pieces, crane operator boomed the crane up close enough to the existing PGE energized overhead lines to energize the crane. The crane shocked the groundman when he touched the crane.	Injury/Illness	
Richmond, CA - Refinery	4/24/2012 12:00:00 AM	Closed	Communications Board failure affects dispatch control	Near Loss	Communications board failure affects dispatch control. No failure occurred but a break was registered 7 times and restored.	N/C-Business Process - Business Process	
Richmond, CA - Refinery	4/26/2012 1:30:00 PM	Closed	E-1411 head leak	Loss	When K-1400 was started liquid and vapor began to flow through HNC high pressure system. The temperature difference between products caused Channel Head to Shell Head joint to leak hydrocarbon onto the asphalt below. (tube side effluent fr R-1410 to R-1411) [Shell side cracked stick Fr V-1420E-1504 BSA to F-1500].	Operational Process/Procedures	(1) Equipment Environment Not Considered: A design review by DED and the gasket SIAE revealed E-1411 is susceptible to low gasket stress and subsequent leakage if once heated up. The shell section is caused to cool greatly and rapidly will respect to the channel section. In this case the shell change was not anticipated. The effect on the studs will stay hot and thermally expanded. This differential growth will allow lower the stud loads imparted and allow gaskets leading to reach low enough levels as to not allow for product containment.
Richmond, CA - Refinery	4/26/2012 1:30:00 PM	Closed	E-1411 head leak	Loss	When K-1400 was started liquid and vapor began to flow through HNC high pressure system. The temperature difference between products caused Channel Head to Shell Head joint to leak hydrocarbon onto the asphalt below. (tube side effluent fr R-1410 to R-1411) [Shell side cracked stick Fr V-1420E-1504 BSA to F-1500].	Operational Process/Procedures	(1) Equipment Environment Not Considered: A design review by DED and the gasket SIAE revealed E-1411 is susceptible to low gasket stress and subsequent leakage if once heated up. The shell section is caused to cool greatly and rapidly will respect to the channel section. In this case the shell change was not anticipated. The effect on the studs will stay hot and thermally expanded. This differential growth will allow lower the stud loads imparted and allow gaskets leading to reach low enough levels as to not allow for product containment.
Richmond, CA - Refinery	4/26/2012 12:00:00 PM	Closed	T-3183 Stick and Fill lines incorrectly tied into the tank.	Near Loss	During the shutdown of T-3183 inspection called about the suction and fill lines configuration. After further inspection with operation I was advised that all the >Swing Line & Suction Line-> Fill line (deduct)	N/C-Business Process - Business Process	(1) Insufficient QADOC that led to not identifying the design flaw.
Richmond, CA - Refinery	4/26/2012 12:00:00 PM	Closed	Misinterpretation of Managers e-mail	Loss	Misinterpretation of Managers e-mail causing the wrong supporting documents to be delivered to limit for Stewardship activities out in the field. This caused loss of time for him and rework for me.	Business Process	(1) upon re-reading the e-mail it is clearly written and my mistake.
Richmond, CA - Refinery	4/27/2012 10:00:00 CA -	Closed	K-1400 seal trap stuck open tripping FCC/R/O/P	Loss	While setting up the HNC for long loop circulation in an effort to heat up E-3417 evenly and mitigate the chance of a leak, Pure Gas Recovery began to see a significant increase in flow. The Pressure control Valve was single blocked again and flow to flare gas did not decrease. Thinking it was the low pressure separator system delayed troubleshooting other systems. Once operations verified it wasn't the Low pressure separation system they continued troubleshooting other areas and found the Seal oil controller on K-1400 stuck	Operational	(1) Why did R/O/P and FCC flare totalizers trip? Totalizers tripped due to high flow from K-1400 seal oil traps. Why was there high flow from K-1400 seal oil traps? Seal oil level controller stuck open. Why did the seal oil level controller stick open? The seal oil level controller failed open due to a

36571	Refinery	AM	Closed	Loss	Oilrigs	Open	Process/Procedures	breakdown.
36601	Richmond CA - Refinery	4/27/2012 6:30:00 PM	Closed	Loss	Employee got sunscreen in eye	Employee had used sunscreen on face and accidentally got some in her eyes. Chevron fire was called and responded. Employee was treated by chevron fire utilizing eye wash to clean her eyes. Employee was then released to return to work.	Injury/Illness	(1) Perspiration caused sunscreen to run into eye. Person didn't realize sweat was running down her forehead into her eyes.
36601	Richmond CA - Refinery	4/27/2012 6:30:00 PM	Closed	Loss	Employee got sunscreen in eye	Employee had used sunscreen on face and accidentally got some in her eyes. Chevron fire was called and responded. Employee was treated by chevron fire utilizing eye wash to clean her eyes. Employee was then released to return to work.	Contractor Injury	(1) Perspiration caused sunscreen to run into eye. Person didn't realize sweat was running down her forehead into her eyes.
36605	Richmond CA - Refinery	4/27/2012 8:12:00 PM	Closed	Loss	Firefighter hit in mouth by hose coupling	Firefighter was deploying firehose (#1 preconnect) from fire engine (Foam 60). The nozzle coupling of the fire hose struck firefighter in mouth area, causing the loss of two (2) top front dental implants.	NI-Injury/Illness - Employee Injury	(1) 1) Preconnected hose loops were not long enough for firefighter to grab the hose from the ground level. (2) 2) Nozzle wasn't secure or placed toward the middle of the crossing.
36605	Richmond CA - Refinery	4/27/2012 8:12:00 PM	Closed	Loss	Firefighter hit in mouth by hose coupling	Firefighter was deploying firehose (#1 preconnect) from fire engine (Foam 60). The nozzle coupling of the fire hose struck firefighter in mouth area, causing the loss of two (2) top front dental implants.	Injury/Illness	(1) 1) Preconnected hose loops were not long enough for firefighter to grab the hose from the ground level. (2) 2) Nozzle wasn't secure or placed toward the middle of the crossing.
36623	Richmond CA - Refinery	4/29/2012 3:00:00 AM	Closed	Loss	13 E0017 was supposed to be closed, 4.9 but was open - 6.9	During the start up of the Butamer plant, C-1320 overhead pressure increased from 100 psig to 350 psig (Normal). Flow through P-017 increased to 104 bpd (E-1301 (No) alarm). The pressure increased on E-1301 and the exchanger was reset at 350 PSID and fired the FRO BU-1303 to the relief vessel V-1360.	NI-Operational Process/Procedures - Safety Systems	(1) Operator failed to confirm the set point input to ensure the proper entry was made into the DCS. 1. Why did "above" happen? The pressure increased on E-1301. 2. Why did "1" happen? FV017 flow increased to 104 bpd to E-1301. 3. Why did "2" happen? 13FC017 was still open 6.5% (Should have been 6.5% per procedure). 4. Why did "3" happen? Operator attempted to enter -6.5% and actually entered 6.5% into the DCS. 5. Why did "4" happen? Entry was not checked by operator to ensure the correct entry was made into the DCS. 6. Why did "5" happen? C80 made the correct entry into the keypad and assumed it was correctly entered but didn't take steps to confirm the screen. 7. Why did "6" happen? Operator was busy on start up and made an error.
36623	Richmond CA - Refinery	4/29/2012 3:00:00 AM	Closed	Loss	13 E0017 was supposed to be closed, 4.9 but was open - 6.9	During the start up of the Butamer plant, C-1320 overhead pressure increased from 100 psig to 350 psig (Normal). Flow through P-017 increased to 104 bpd (E-1301 (No) alarm). The pressure increased on E-1301 and the exchanger was reset at 350 PSID and fired the FRO BU-1303 to the relief vessel V-1360.	NI-Operational Process/Procedures - Safety Systems	(1) No formal inspection of the guide bars conducted. (2) Additional consideration: Portion of guide bar that extends out from wrench plate is not reinforced. (3) Additional consideration: The severe corrosion / deteriorated condition of the guide bars were not highlighted during routine inspection. (4) Additional consideration: Risks was not fully recognized and exposed the Operator on the line fire while trying up the strip
36641	Richmond CA - Refinery	4/29/2012 12:00:00 AM	Closed	Loss	Visible flame from NISO flare	On April 29, while tying-up the vessel Eugene in Bench #4, the mooring line tangled up on the tender chains, the operator put a bird wrap on the mooring winch. One of the two Operators attending to MK405 was between the vessel and the mooring winch, but not in the line of fire. After the Operator resumed pulling the mooring wire, the guide bar snapped and the 2016a before falling over the beam and into the water, narrowly missing a second operator that is positioned on the beam to assist the berthing. When the guide bar broke, the operator did not stop work and was to the operator attending to the mooring winch and stop work. The other MKs evaluated by Plant Protection and returned to work without restrictions.	Operational Process/Procedures	(1) Why NISO flare had visible flaming? Light ends in Flare base liberated during heat of the day Why were light ends in the flare base? Light ends in the flare base came from NISO blowing down E-767 due to it being perceived to be failed Why did E-767 seem to stall? E-767 seemed to stall because the column was actually flooded and the column has no delta p alarm. Cips was not aware of the flooding in the column.
36641	Richmond CA - Refinery	4/29/2012 12:00:00 AM	Closed	Loss	Visible flame from NISO flare	On April 29, while tying-up the vessel Eugene in Bench #4, the mooring line tangled up on the tender chains, the operator put a bird wrap on the mooring winch. One of the two Operators attending to MK405 was between the vessel and the mooring winch, but not in the line of fire. After the Operator resumed pulling the mooring wire, the guide bar snapped and the 2016a before falling over the beam and into the water, narrowly missing a second operator that is positioned on the beam to assist the berthing. When the guide bar broke, the operator did not stop work and was to the operator attending to the mooring winch and stop work. The other MKs evaluated by Plant Protection and returned to work without restrictions.	Operational Process/Procedures	(1) Why NISO flare had visible flaming? Light ends in Flare base liberated during heat of the day Why were light ends in the flare base? Light ends in the flare base came from NISO blowing down E-767 due to it being perceived to be failed Why did E-767 seem to stall? E-767 seemed to stall because the column was actually flooded and the column has no delta p alarm. Cips was not aware of the flooding in the column.
36655	Richmond CA - Refinery	4/25/2012 6:00:00 PM	Closed	Loss	Changing Distate additive, inconsistent information from HES on if this needed permitting	D&R would like to switch from EC5208N to EC5208A additive for Distate/P-45. This material is more readily available and more cost-effective. The material was approved to bring in to the JHT through the RI313 process which included Environmental sign off. This review occurred in the summer of 2011. The ABU Environmental group perform a review during the MOC review process. It was determined that the naphthalene content of the EC5208A material would require a health risk screen or permitting through the BAAQMD. The MOC was reviewed by different people in the Environmental group than the RI313.	NI-Regulatory Compliance - Non Compliance - Air	(1) The 5Why investigation is here: https://collab001-btu-sp-chevron.net/asasasagmignoeal_PSOURLIDocLibs/Why%20reports%20Nalico%20Aaddive.docx The RI313 database is lacking triggers for doing HRSAs review. (2) Specialist was trained on HRSAs reviews, but did not complete one for this chemical
36655	Richmond CA - Refinery	4/25/2012 6:00:00 PM	Closed	Loss	Changing Distate additive, inconsistent information from HES on if this needed permitting	D&R would like to switch from EC5208N to EC5208A additive for Distate/P-45. This material is more readily available and more cost-effective. The material was approved to bring in to the JHT through the RI313 process which included Environmental sign off. This review occurred in the summer of 2011. The ABU Environmental group perform a review during the MOC review process. It was determined that the naphthalene content of the EC5208A material would require a health risk screen or permitting through the BAAQMD. The MOC was reviewed by different people in the Environmental group than the RI313.	NI-Regulatory Compliance - Non Compliance - Air	(1) The 5Why investigation is here: https://collab001-btu-sp-chevron.net/asasasagmignoeal_PSOURLIDocLibs/Why%20reports%20Nalico%20Aaddive.docx The RI313 database is lacking triggers for doing HRSAs review. (2) Specialist was trained on HRSAs reviews, but did not complete one for this chemical
36657	Richmond CA - Refinery	4/21/2012 6:30:00 AM	Investigation in Progress	Loss	A/C failure caused H temp in Server Room	A/C failure caused H temp in TC320 Server Room - On Saturday 4/21 at 6:30 in the morning the A/C unit in TC320 failed and shutdown. This caused the shutdown due to the H temperature in the room. FOS was not notified of the H temp due because TC320 had not been added to their paging system yet.	NI-Equipment/Property Damage - Equipment	(1) The monitoring on the 3rd floor server room was not set up properly so that the FOS office received notice when the high temperature limit was reached. Why? We have not recently had an issue with the A/C and temperature alarms in that room. Apparently it has not be set properly for quite some time. Why? No testing of the high temp alarm has been conducted. Why? On setup, no testing of the system was done to determine if the high temp alarm would be transmitted to FOS in RTC.
36657	Richmond CA - Refinery	4/21/2012 6:30:00 AM	Investigation in Progress	Loss	A/C failure caused H temp in Server Room	A/C failure caused H temp in TC320 Server Room - On Saturday 4/21 at 6:30 in the morning the A/C unit in TC320 failed and shutdown. This caused the shutdown due to the H temperature in the room. FOS was not notified of the H temp due because TC320 had not been added to their paging system yet.	NI-Equipment/Property Damage - Equipment	(1) What: \$10K over-billed for Office Manager, which isn't a billable position according to the Vendor/Chevron Contract. Why: 1. Billed Office Manager because vendor's Timekeeper received verbal instruction to bill the Office Mgr. then vendor's billing system generated "no rate to match" error code.

https://impacterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_fb8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

36706	Richmond, CA - Refinery	4/28/2012 PM	Closed	Loss	\$10K worth of Contractor Billing Errors	prohibits this). Upon further review, discovered the individual occupying this Office Manager position was regularly paid in Mexico in early 2011 as a higher pay grade Craft Apprentice (the individual never worked as a Craft Apprentice and was always an Office Manager). It was also observed that this individual's Machine code was changed from the Craft Apprentice code when it was required to bill for the Office Manager code (billed just when), then this individual was no longer included in invoices until the invoice month of April 4, 2012 billing.	Business Process	Overcode the error code by choosing a different rate. Why 2: Overcode error check with a different rate because vendor's Timekeeping system was familiar with the pre-2010 Capital Contract and coupled with the error check to bill the Office Mgr. the Timekeeper fell it was ok to bill the Office Mgr. Researching the cause of the system error would take more time and over-riding the error code in this manner risks usually been the right thing to do.
36734	Richmond, CA - Refinery	4/28/2012 5:00:00 PM	Closed	Near Miss	Missed Inlet/air: round CFO 4726 nightshift - No exception entered	The CFO Operator compiled his inlet/air rounds for 4726 nightshift and attempted to download them shortly after midnight because there were only 2 functioning units for the T&B section that evening. The CFO operator was trying to ensure that everyone would have access to a handheld unit prior to the start of shift. The download failed to reflect nightshift and instead showed up as a 5:00 AM shift. When the Head Operator went to approve the round it would not work. The Head Operator was not clear on the requirement to enter a corrective action before the end of shift.	NL-Business Process - Business Process	(1) Training is less than adequate to address the critical step to check the entire shift of data that was downloaded
36769	Richmond, CA - Refinery	4/28/2012 8:00:00 AM	Closed	Near Miss	Green Card, Contractor PFD's look really worn. Location: Long Wharf	Green Card, PFD's are required PPE at the Wharf. Some PFD's worn by contractors (supplied by their company) looked really worn. This is a safety concern in case of rescue. Will it provide enough flotation time to allow for rescue? It is the responsibility of PFD's are they being used correctly and maintained in the proper location. When INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT.	NL-Injury/Illness - Contractor Injury	(1) Not given PFD Users Manual, (2) Not given instructions on how to inspect PFDs, (3) PFD-360 is not clear on PFD tracking expectations, (4) Fix equipment in disrepair
36784	Richmond, CA - Refinery	4/30/2012 7:30:00 AM	Closed	Near Miss	Green Card, Bump Isister (repositioned). Location: Bldg 214	Green Card, Tried to bump last 2 H2S monitors at Bldg 214 Bump Station and they both failed. I went to the fire station and tested the same 2 monitors and they both passed. Location: Bldg 214	NL-Lessons Learned	
36789	Richmond, CA - Refinery	5/1/2012 10:30:00 AM	Closed	Loss	Company EE aggravated prior non-work related injury to right hand while swinging a hammer. EE was working on K-1171A cylinder repairs. EE seen at Green Card Steam leak.	Company EE aggravated prior non-work related injury to right hand while swinging a hammer. EE was working on K-1171A cylinder repairs. EE seen at Green Card Steam leak on steam trap piping overhead on trap # 124 and 112 near to P-3595. Location: D&R 4Gal	NL-Injury/Illness - Contractor Injury	(1) Company EE aggravated prior non-work related injury to right hand while swinging a hammer. Why did above happen? (2) The EE was undoubtedly engaged in productive work. The EE should not have before utilized the LPGA for personal use. Employer could have verified the shodge hammer and taken it upon himself to take a break and or handed the hammer off to work partner.
36850	Richmond, CA - Refinery	4/24/2012 3:00:00 PM	Closed	Near Miss	Green Card, Steam leak. Location: D&R 4Gal next to P-3595	Green Card, Steam leak on steam trap piping overhead on trap # 124 and 112 near to P-3595. Location: D&R 4Gal	NL-Injury/Illness - Contractor Injury	
36853	Richmond, CA - Refinery	4/24/2012 3:00:00 PM	Closed	Near Miss	Green Card, Aluminum insulation wrap is coming off. Location: D&R F-3550	Green Card, By F-3550 ground level there is aluminum insulation wrap coming off. The insulation can possibly cut. It's sharp the aluminum sheathing. Location: D&R F-3550	NL-Injury/Illness - Contractor Injury	
36865	Richmond, CA - Refinery	4/25/2012 8:00:00 AM	Closed	Near Miss	Green Card, A big overhead steam leak. Location: S. Isomax F-320/F-320	Green Card, A big overhead steam leak needs insulation removed and scaffold to be built to get to the leak. Location: S. Isomax F-320/F-320	NL-Environmental - Operational Leak	
36900	Richmond, CA - Refinery	5/2/2012 11:24:00 PM	Closed	Near Miss	V-730 filled over top causing flow to Aky Flare of 7 acid	V-730 over 100%. The temporary spare in place of P-730 did not have the capacity to keep up with the quantity of liquid entering V-730. Liquid LPG in the collector tank overflowed and overfilled the capacity of Flare Gas recovery compressors.	NL-Regulatory Compliance - Non Compliance	
36930	Richmond, CA - Refinery	5/1/2012 5:00:00 AM	Closed	Near Miss	Missed Inlet/air / Wharf L&B / Program error	The Inlet/air round for 5/1/12 for the Wharf L&B was missed (Procedure Auditor check). Corrective action was not initially entered.	NL-Business Process - Business Process	(1) Lack of understanding of Inlet/air rates & responsibilities by Operator / Head Operator
36940	Richmond, CA - Refinery	5/2/2012 5:00:00 PM	Closed	Loss	PARTIAL IN EYE	MECHANIC WAS WORKING IN HIS AREA WELDING AND GRINDING. ANOTHER EMPLOYEE CAME TO ASK HIM ABOUT A JOB. HE STOPPED WORKING AND FELT SOMETHING ENTER HIS EYE.	Injury/Illness	(1) DID NOT SEE THE HAZARD. OR THE NEED TO LEAN FORWARD
36950	Richmond, CA - Refinery	4/20/2012 10:00:00 AM	Closed	Near Miss	Green Card, Found liquid leaking down the gas line. Location: D&R 4Gal	Green Card, Found liquid leaking down fuel gas line. Location: D&R 4Gal	NL-Environmental - Operational Leak	(1) SOG: Training & Procedures (Communications & Lessons Learned): Liquid Observed Leaking Out of Fuel Gas Line. Contract Mechanic in Area made observation and reported it to operations and supervisor, as expected. Operations investigated and found liquid fill gauge leaking onto fuel gas line. Shared non-event near miss to encourage reporting of potential hazards with contractors and operators.
36972	Richmond, CA - Refinery	5/2/2012 12:00:00 PM	Closed	Loss	Missed Inlet/air Duty	Missed Inlet/air Duty.	Business Process	(1) Understanding on the monthly duty is less than adequate.
36990	Richmond, CA - Refinery	5/2/2012 6:30:00 PM	Closed	Near Miss	Aqueous caustic water leaked from portable tank to secondary asphalt containment in Hot Waste	At start of shift, contractor noticed quantity of water with oil stain was pooled around the centrifuge work area in Hot Waste Annex. Water appeared to be leaking from underneath a portable tank containing caustic water. Flashed for pump off to 1A Separator. Estimated no more than 40 bbls water leaked. Oil	NL-Environmental	

36977	Refinery	AM	Closed	Loss	Amox extra	Shovel only, so hydration estimated < 100.	Spill	(1) "FIVE WHY" One Page Report Incident Number Business Unit D&R Location Facility Name Richmond Incident date 5/4/12 Type of Process: Name of Equipment: Team Members: Scott Kawahara Bill Vassallo Incident Description: What: Totalizer trip & possible flaring event due to K-242 & 252 tripping due to a high liquid level in V-242 1st stage KO drum which may have had possible flaring. Where: DHT Plant When: 5/4/12 @ 17:40 How: Bad instrumentation values on V-1600 oil level transmitter KO V-242 resulting in liquid carry over from V-1430 into V-242. Why: Bad instrumentation manual carried into shift change and at time of K-242-252 trip. Problem Statement (What is the key issue that needs to be addressed): 16LC061 to be repaired. FIVE WHYS: 1. Why did "above" happen? Verification Totalizer trip and Possible flaring P1002 High pressure 2. Why did "1" happen? High level in V-242 KO Field verification 3. Why did "2" happen? Tripping of K-242-252 Shutdown of K-242-252 4. Why did "3" happen? Bad instrumentation on 16LC061 showing a bad value @ V-1600 Confirmed by DHT PCO & East Side HO 5. Why did "4" happen? 6. Why did "5" happen? 7. Why did "6" happen? 8. Why did "7" happen? ROOT CAUSE: What was the Root Cause of your incident? Instrumentation issues on 16LC061 LPS Factor: Factor G: Inadequate Tools or Equipment
37057	Richmond, CA - Refinery	5/4/2012 5:00:00 AM	Closed	Loss	D&R totalizer trip & possible flaring due to high level in V-1600	D&R totalizer trip & possible flaring event due to SD of K-242 & 252 caused by a high level in V-1600. V-1600 currently had instrumentation issues on 16LC061 earlier in the day as control valves was in manual operating mode.	Environmental	(1) Area was not accessed properly to identify risks of running cord overhead
37115	Richmond, CA - Refinery	5/7/2012 7:30:00 AM	Closed	Loss	Vehicle backed into overhead electrical cord	Contractor vehicle backed into a new installation of an overhead electrical cord. (Was in process of cleaning port-a-potty)	NI - Equipment/Property Damage - Equipment	(1) Area was not accessed properly to identify risks of running cord overhead
37115	Richmond, CA - Refinery	5/7/2012 7:30:00 AM	Closed	Loss	Vehicle backed into overhead electrical cord	Contractor vehicle backed into a new installation of an overhead electrical cord. (Was in process of cleaning port-a-potty)	Transportation	(1) Area was not accessed properly to identify risks of running cord overhead
37118	Richmond, CA - Refinery	5/5/2012 1:00:00 AM	Closed	Loss	backed into a yellow pole in the gravel pit out near DHT	EE was called out after hours on an instrument job for D&R on Friday night 5-4-12. He backed into a yellow pole in the gravel pit out near DHT. It was about 1:00 AM when this occurred. He was off work on Saturday 5-5-12 for company convenience due to the time he left the refinery on Saturday morning	Transportation	(1) "FIVE WHY" One Page Report Incident Number 37118 Business Unit D&R Location Richmond Facility Name Incident date 5/5/2012 Type of Process: Type of Equipment: Team Members: Tony Vink Sylvia Ballard Incident Description: What: NAVA Where location or where in the process: DHT When: 5/5/2012 1:00am How: Backing truck up. Problem Statement (What is the key issue that needs to be addressed): Backed truck into a yellow pole in the gravel pit out near DHT. FIVE WHYS: 1. Why did "above" happen? Vehicle Did not stop. 2. Why did "1" happen? Bad instrumentation Conditions changed from field to night did not do safety around truck before leaving. 3. Why did "2" happen? Long day ready to go home. 4. Why did "3" happen? 5. Why did "4" happen? 6. Why did "5" happen? 7. Why did "6" happen? 8. Why did "7" happen? ROOT CAUSE: What was the Root Cause of your incident? LPS Factor:
37140	Richmond, CA - Refinery	5/5/2012 8:00:00 AM	Closed	Loss	K-300A loss of tube oil to asphalt grade resulting in K-300A and B shutdown.	Operations discovered tube oil seeping for K-300A gearbox vent and bearing tube oil return of vents.	Environmental	(1) "FIVE WHY" One Page Report Incident Number 37140 Business Unit Cracking Location Richmond Facility Name

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37229	Richmond, CA - Refinery	9/27/2012 10:00:00 AM	Closed	Near Loss	PMI Cargo Tanker Split Conductivity On Tank	A total of 269 MB of high density diesel was loaded for PMI on the Teesta Spirit steaming May 4th at 2:00 and ending May 7th at 12:30. During the lead conductivity additive was thought to be injected to a target of 0.20 galls/MB to meet the conductivity specification of 100 ppm. However, following the completion of the ship the inspector, inspectorate, reported that conductivity of the vessel was only 37 ppm. The material loaded met all other specifications.	NL-Quelty - Additive Injection (Ext)	conductivity additive was injected. Why? Monitoring of the conductivity additive injection rate was not sufficient. Why? Procedures do not specify to monitor the tank level drop during the lead to vary the amount of additive injected. (2) Loss: Conductivity off-spec. Why? Not enough conductivity additive was injected. Why? Monitoring of the conductivity additive injection rate was not sufficient. Why? The crane conductivity analyzer did not indicate that the additive injection rate was 100 lpm.
37268	Richmond, CA - Refinery	4/28/2012 10:00:00 AM	Closed	Near Loss	Green Card, Bracket scores are trash. Location: T-992	Green Card. On T-992 from top of tank on stairs (1st light pole over stairs) is secured to a channel flange (galvanized) support brace. The screw that goes through both sides of the brackets that are secured to channel brace is not stainless steel and rusted out (about 80%) almost completely. Extremely high wind rust light tank and tank constantly. When bolt breaks, it will cause light to fall and possibly hurt someone. Hold it but when (soon) due to location (steelside). Probably no one will get hurt (do you feel lucky?) Location: T-992	NL-Lessons Learned	
37261	Richmond, CA - Refinery	4/28/2012 10:00:00 AM	Closed	Near Loss	Green Card, Platform grading has rust problems. Location: T-992	Green Card. At the top of the stairway on T-992 the grading on the platform has some serious rust problems. In some areas completely gone. In other areas 40 to 75% rusted out. Then on handrail going down on the 4th step before the second light on the stairs on the underside of the handrail, it is rusted out 3/4" wide by 1 1/2" long. Serious problem if you grab handrail there without gloves on, could get lacerate. Make sure you get your whole first, that way it won't be a recordable, just a first aid. Location: T-992	NL-Lessons Learned	
37292	Richmond, CA - Refinery	5/22/2012 7:45:00 AM	Closed	Near Loss	Green Card, Someone tried to cross the barricade lepa. Location: D&R F-3560 Westdown Station	Green Card. While doing a steam cleaning in the ground with barricade lepa, somebody tried to cross the barricade lepa. Location: D&R F-3560 Westdown Station	NL-Lessons Learned	
37263	Richmond, CA - Refinery	5/6/2012 6:30:00 AM	Closed	Near Loss	Green Card. The crosswalk is poorly lit. Location: B&S (Main St) T125 Gate	Green Card. While driving on Main St, I barely saw a pedestrian crossing the street from T125 (junction). The crosswalk is poorly lit especially in the morning. Location: B&S - T125 Gate	NL-Transportation - Company	
37326	Richmond, CA - Refinery	5/6/2012 4:30:00 PM	Closed	Near Loss	Crack in FCC South GRU relief line	Cracking hisoposia discovered an approximately 2" long crack on the FCC South GRU relief line.	NL-Environmental - Operational Leak	(1) 2. Inspection strategy and inspection points were not adequate for presiding this corrosion/rate. (2) 1. Relief line is past original design life.
37344	Richmond, CA - Refinery	5/6/2012 12:00:00 PM	Closed	Near Loss	Green Card - Contractor noticed low hanging wire on petiole street	While driving on petiole street, noticed low hung wire, get in contact with Chevron Safety, who in return contacted Plant Protection and the electrical person.	NL-Injury/Illness - Contractor Injury	
37345	Richmond, CA - Refinery	5/10/2012 6:10:00 AM	Closed	Near Loss	Driver of a truck gets out of a running vehicle to have a conversation with another person in a roadway.	A state had truck and stop in the middle of the intersection window to window. In order to have a conversation, the driver of the state had truck got out in the intersection in order to talk on the side of the road. The truck was running and the door open. Meanwhile, other vehicles had to go around the conference. The pickup eventually went into the tank fired by tank 3155 and the state had truck proceeded down Main. Note: There was a recent fatality associated with carrying on a conversation in the roadway and exiting a running vehicle.	NL-Injury/Illness - Contractor Injury	
37346	Richmond, CA - Refinery	5/6/2012 12:00:00 AM	Closed	Near Loss	T-991 failed certification because the gas blander compressor engines were not properly rated after routine maintenance	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE REPORT. Gas blander compressor engines were not properly rated after routine maintenance resulting in T-991 failing certification. The failed certification was due to an error in acquiring a certificate of analysis.	NL-Business Process	(1) SOG: Training & Procedures: Oil change was not in the daily routine. Other operators assumed the operator was aware of the weekly job duty. Assumed operator had switched the engines to run after the mechanic.
37354	Richmond, CA - Refinery	5/10/2012 12:00:00 AM	Closed	Near Loss	T-990, off test product sold on pipe line.	Premium gasoline from T-990 was set to sell on the Bay Area Pipe Line (BAPL). Operators noticed that the routine pipe line samples did not match the Certificate of Analysis (COA). Check samples were pulled on the tank and pipe line as well as the retained samples from the COA. The pipe line and tank samples were consistent but differed for the COA and retained sample. T-990 continued to sell after 23:00 when we were aware that sample results exceeded the allowed 5 differential for gravity between the COA and the pipe line samples.	NL-Quelty - Product Quality (Ext)	(1) STL did not use Stop Work Authority to shutdown T-990 going to the BAPL even though the BAPL had given permission to keep it going. Not aware that we can refill tank with a new batch number.
37354	Richmond, CA - Refinery	5/10/2012 12:00:00 AM	Closed	Near Loss	T-990, off test product sold on pipe line.	Premium gasoline from T-990 was set to sell on the Bay Area Pipe Line (BAPL). Operators noticed that the routine pipe line samples did not match the Certificate of Analysis (COA). Check samples were pulled on the tank and pipe line as well as the retained samples from the COA. The pipe line and tank samples were consistent but differed for the COA and retained sample. T-990 continued to sell after 23:00 when we were aware that sample results exceeded the allowed 5 differential for gravity between the COA and the pipe line samples.	NL-Quelty - Product Quality (Int)	(1) STL did not use Stop Work Authority to shutdown T-990 going to the BAPL even though the BAPL had given permission to keep it going. Not aware that we can refill tank with a new batch number.

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37758	Richmond, CA - Refinery	5/17/2012 PM	Closed	Loss the base	K-910 (H2 booster compressor) SD due to cracks in the base, causing H2 production loss.	Equipment/Property Damage	(12) Age related deterioration of the groud cap resulted in separation of the side plates from it.
37802	Richmond, CA - Refinery	6/18/2012 12:00:00 PM	Closed	Loss Cooling water piping damaged while in the K-910 motor deck with ports-powers.	5yr motor PM work was in progress for K-910 motor. During the process there were some mistakes that appeared to be back. A decision was made to move the motor back for further inspection. A contract company was requested to disconnect the cooling water piping under the compressor deck. The disconnected piping was then supported by the contract company to prevent unnecessary pipe strain. This positioned the piping (large back together). The major Machinery Crew did not recognize the piping had been supported after the disconnection since they were not monitoring the static move. During the static move of moving the motor with the ports power the cooling water piping was damaged.	Equipment/Property Damage	(11) Cooling water piping damaged while in the process of moving the MK-910 motor back with 2 ports-powers. Why did the above happen? 1. After the motor exchange/cooler piping flanges were separated the spool / piping was "back supported to prevent pipe strain" and this was not recognized by the compressor crew prior to the move. Why did above happen? Inadequate communication during pre job meeting about how to perform the work. (The crew was focused on the 250 clearance between the motor and rotor and did not account for needing someone below the deck to monitor the move) Root cause was a lack of communication of potential equipment damage during the move which should have been discussed during pre job meeting.
37805	Richmond, CA - Refinery	5/17/2012 12:00:00 AM	Management Review	New Transmission of Annual properly has data to Colony infects information protection	Annually we file a number of reports in spreadsheet, PDF, and document format with the Contra Costa County Assessors office to support the current year requests for information. Some of these items include company confidential information (we are required to provide so no issue here). These documents were sent as email attachments to the correct contact in the Assessors office. Information protection protocol was not followed.	NL-Security - Information Protection Loss - Other	(1) Not familiar with the technology available to secure data with external parties. (2) process not in place to apply new standards to current processes - information protection standards while not applied to procedures - see additional root cause - procedures did not exist. (3) procedures for the process do not exist.
37807	Richmond, CA - Refinery	5/17/2012 7:40:00 AM	Closed	Loss Operator suffered minor cut to finger, from glass sample bottle with chipped neck.	Employee cut the finger while removing a cork from the neck of a 40Z size glass sample bottle. Afterwards employee noticed that the bottle was chipped at the neck, and suffered a minor cut even though he was wearing nitrile exam gloves.	NL-Injury/Illness - Employee Injury	(1) Bottle with chipped neck was distributed through the lab. (2) FIVE WHY- One Page Report Incident Number 37807 Business Unit Quality Control Div Location Bldg35 Facility Name Richmond Refinery Incident date 5/17/2012 Type of Process Lab Testing Type of Equipment Sampling Bottle Team Members Adam Williams Jr. James Fox Incident Description: What: QCD Lab Operator suffered minor cut to finger from a glass sample bottle with a chipped neck. Where: QCD Lab Bldg35 Facility Name: Richmond Refinery Incident Date: 5/17/2012 At QCD in GC Lab RM 1125. Why: How: Employee cut his finger while removing a cork from the neck of a 40Z size glass sample bottle. Problem Statement: QMwat is the key issue that needs to be addressed? How to increase awareness of the risks involved with the handling glassware at QCD. FIVE WHYS: 1. Why did above happen? Verification A sample bottle with a chipped neck was allowed to be distributed thru the lab. 2. Why did "1" happen? Several employees who handled the bottle didn't notice the chipped neck. 3. Why did "2" happen? Operators need to conduct closer inspections of glassware for cracks and chips. 4. Why did "3" happen? Sometimes sample tags can obscure clear view of neck of 40Z bottle. 5. Why did "4" happen? Handling glassware is a routine activity that employees have become overly confident of not getting injured ROOT CAUSE: What was the Root Cause of your incident? Bottle with chipped neck was allowed to be distributed thru the lab.

37827	Refinery	AM	Closed	Loss	neck.	glows.	Injury/Illness	neck was allowed to be distributed thru the lab.
37810	Richmond, CA - Refinery	5/18/2012 12:00:00 AM	Investigation In Progress	Near Loss	Loss of RLOP/SISO DMC Server	On 5/18, a fan server was found to be not responding. Logging into the server via XRM showed that the server was hung on hitting RAID controller. Server was booted up and found to have all rebooted. It was found that one of the four primary hard drives failed and the server was using the good hard space. The reboot was due to a hardware fault during that severe rebuild. Some of the firmware was found to be out of date as well. Server was rebooted again after troubleshooting and controllers started up on 5/17.	NL - Business Process Interruption	(1) Suffered 2 drive logical failure. This caused the server to reboot. After rebooting the server hung up and needed to be hard reset. WHY? Needed to reboot server to investigate. Fully drive was rebuilt after investigation. WHY? Firmware was also found to be out of date by one version from investigation. Firmware was on at commissioning. Out of date firmware had never been updated. WHY? Server is 6+ years old. Drivers and hardware are past MTBF. WHY? Funding unavailable to replace APC servers. WHY? Waiting for global project to replace APC servers. This project has been delayed several times.
37828	Richmond, CA - Refinery	5/27/2012 5:30:00 AM	Closed	Near Loss	Green Card, Poor visibility. Location: Gate 91	Green Card. As I turned into Gate 91, there was a car in front of me that was almost in a head-on accident with an oncoming car exiting Gate 91. I have maintained this before. Not only is the visibility poor cars to decrease but the trucker was not visible. I could not see the trucker until it was too late. We need to improve the lighting on road or put new paint down. I feel it's only a matter of time before there is an accident. Location: Gate 91	NL - Lessons Learned	
37820	Richmond, CA - Refinery	5/10/2012 12:30:00 PM	Closed	Near Loss	Green Card, Nails and screws on ground. Location: behind CT/Ribbler Strip	Green Card, Nails and screws on ground. Trailers, service trucks and forklifts getting punctured tires constantly. Location: Behind CT/Ribbler Strip	NL - Equipment/Property Damage - Equipment	
37831	Richmond, CA - Refinery	5/10/2012 11:30:00 AM	Closed	Near Loss	Green Card, Soiled coveralls and PPE. Location: California	Green Card. Numerous employees/contractors in California with soiled coveralls and PPE. Personnel sit at tables transferring tables and chairs with unknown chemicals. Others sit in these chairs transferring unknown chemicals onto their personal clothes. Location: California	NL - Lessons Learned	
37833	Richmond, CA - Refinery	5/11/2012 1:00:00 PM	Closed	Near Loss	Green Card, A lot of cracks/drinking holes. Location: RLOP	Green Card. There are a lot of cracks and sink holes throughout RLOP. Marking paint is good for tripping hazards but not for sink holes. I feel that during shutdowns when foot traffic is high we should get bags of call-back (temp asphalt) to fill holes. This will be a good remedy for injuries and temp asphalt comes in small 15lb bags which would make an efficient quick fix. Location: RLOP	NL - Injury/Illness - Contractor Injury	
37835	Richmond, CA - Refinery	5/12/2012 2:00:00 AM	Closed	Near Loss	Green Card, Need to implement a plan to expedite cleanup. Location: RLOP	Green Card. There was a spill on surface that required immediate attention. When the spill was empty, instead of having to call and wait for new task to be made, I could have applied for an expedite cleanup. Especially in RLOP which is known for slippery chemical spills. Location: RLOP	NL - Lessons Learned	
37836	Richmond, CA - Refinery	5/14/2012 10:00:00 AM	Closed	Near Loss	Green Card, Low hanging board on staging. Location: T-60122 (TMR)	Green Card. On Tank 592, had to move to another entry. Manway on backside of ladder was under staging boards. When climbing up or down, people would bump their heads. So I did an LPSA and decided to move the staging board over and out of the way to make it safe to climb up or down the ladder without any potential injury or problems of slipping caused by low-hanging board on the staging or the grating.	NL - Injury/Illness - Contractor Injury	
37838	Richmond, CA - Refinery	5/14/2012 12:00:00 AM	Closed	Near Loss	damage to boiler insulation/contraction. added cost to boiler SD	On 5/14/12 ops discovered #3 Boiler damage to the boiler skin, insulation and brickwork on the rear mud-drum area. Insulation & brickwork collapsed which led to grade level exposing many steam tubes affecting draft and stack O2 levels. We shutdown the boiler on 5/15 to minimize further damage and cleanup the possible asbestos pieces that fall to grade.	Equipment/Property Damage	(1) The boilers are 75 years old and deterioration of the exterior steel has corroded thru and lost support for the insulation.
37843	Richmond, CA - Refinery	5/17/2012 2:10:00 PM	Closed	Near Loss	Non-Work related health issue	EE was transported off site by ambulance for a non-work related health issue. While at the clinic for an evaluation, the clinic made the determination that the EE needed to be transported by ambulance to off site medical facility.	NL - Injury/Illness - Employee Injury	
37932	Richmond, CA - Refinery	5/18/2012 6:00:00 PM	Closed	Near Loss	HO	Last Night 18 May 2012, an operator was forced to work as an HO when he was not qualified for the position. There was a force for vacation for 2 months and the dates were not covered. They were covered when an HO came back off of leave and then was forced in the next two nights. He ended up calling in sick for the forces, leaving the crew short. We sent an operator home to come back that night to cover the board job that is needed. Making one operator go home after working 9 hr. off for 8 then work another 8 hours. Because of this, it forced the board operator to work 16 hours. This same incident occurred again the following night shift.	NL - Regulatory Compliance - Non Compliance	
	Richmond, CA -	5/18/2012 6:00:00	Near	working without a qualified		Last Night 18 May 2012, an operator was forced to work as an HO when he was not qualified for the position. There was a force for vacation for 2 months and the dates were not covered. They were covered when an HO came back off of leave and then was forced in the next two nights. He ended up calling in sick for the forces, leaving the crew short. We sent an operator home to come back that night to cover the board job that is needed. Making one operator go home after working 9 hr. off for 8 then work another 8 hours. Because of this, it forced the board operator to work 16 hours. This same incident occurred again the following night shift.	NL - Business Process	

3/19/12	Refinery	PM	Closed	Loss	HO		- Business Process	
38017	Richmond CA - Refinery	5/21/2012 10:30:00 AM	Closed	Loss	Pickup truck contacted grand rail on the passenger side of the truck causing minor damage to the truck.		Transportation	(1) Driver thought he had enough room to make it through but could not see right side of truck from driver seat to confirm
38022	Richmond CA - Refinery	5/21/2012 1:30:00 PM	Closed	Loss	Pin hole leak 6 plant NH3 line		Equipment/Property Damage	(1) Piping design promotes turbulence by allowing socket welded flanges in a highly corrosive system.
38028	Richmond CA - Refinery	5/21/2012 06:00:00 AM	Closed	Loss	Sub-Contractor ran over EDMUD valve box.		Equipment/Property Damage	(1) Sub-Contractor park in front of the valve box which was located off Western Cr. He had noticed the box when he arrived but forgot about it when he was pulling away.
38032	Richmond CA - Refinery	5/21/2012 5:00:00 PM	Closed	Loss	3.5 BBL'S OF JET MATERIAL SPILLED INTO SECONDARY CONTAINMENT WHILE PREPARING THE 14 GAS FOR LINE REPAIRS		Loss of Containment	(1) Past practice of using a non-standard pipe sleeve (used an old pipe as a sleeve) was less than adequate and resulted in accelerated corrosion of buried pipelines. (2) Additional Consideration: Moorbelling scheme that was implemented on the JP5 facility was less than adequate. Vessels still have clay materials and lines were not emptied / not water washed. (3) Reinforce the use of SYVA for any deviation on approved procedures.
38032	Richmond CA - Refinery	5/21/2012 5:00:00 PM	Closed	Loss	3.5 BBL'S OF JET MATERIAL SPILLED INTO SECONDARY CONTAINMENT WHILE PREPARING THE 14 GAS FOR LINE REPAIRS		Environmental	(1) FCC operators called the Utilities DHD reporting loss of power to MCC-9, located on Transformer Bank 148. The DHD found the main feeder for MCC-9 in the open position, found Utilities breaker 148-1 in the open position and found the breaker for MP-113C in the open position. None of the three open breakers had any trip indication on their protective device. The MCC-9 breaker's trip unit battery was dead so it could not show a trip indication. The battery maintaining the trip indication once the circuit breaker opens. Utilities STL contacted Utilities CA for assistance. The main maintenance supervisor called two electricians to help with the troubleshooting and reporting of power to subfeeder at MCC-9. The electricians found no power to the MCC-9 motor feeders, bus, and switchgear. All testing showed no indication of any fault on the system. Utilities began restoring power beginning with the 480V switchgear follow by the 480V MCC-9. Once normal power was restored, Operations began returning essential equipment to service. Non-essential equipment was tested on dayshift and returned to service. Motor tests were performed on MP-113C on dayshift. The motor tested good and was started without incident. No root cause could be identified. There has been no loss of equipment since the system was returned to normal service. The trip indication battery was dead. A replacement battery has installed as the equipment on TX Bank 148 was returned to service.
38040	Richmond CA - Refinery	5/21/2012 10:15:00 PM	Closed	Loss	Loss of FCC electrical breaker #148 which resulted in the loss of critical equipment.		Operational Process/Procedures	
38102	Richmond CA - Refinery	5/17/2012 3:30:00 PM	Closed	Loss	Green Card. Multiple boards on walkway are on this walkway are rotten. Upon further review, the supports underneath the walkway are rotting as well. Location: #1 Pump Station, 10 North of MP-101		HL-Injury/Illness - Contractor Injury	(1) The insulators were approximately 10 years old. Age related degradation (Casual Factor 1). (2) Flow is fast to the ESP. Insulator housing for 4D hours (Casual Factor 3). (3) No corrective actions were taken to ensure OEM evaluation from 2000 STD were noted and acted upon to prevent future failures of the insulators. (Casual Factor 2). (4) Position of the tag layer is unknown in the vessel (Assumption Casual Factor 4) and Existing procedure to remove tag layer is not adequate to ensure tag layer is gone. Since this causal factor cannot be factually tied to the root cause of this failure, it is only considered in the investigation as an area for improvement in order to avoid future failures of the ESP.
38106	Richmond CA - Refinery	4/17/2012 12:00:00 AM	Closed	Loss	RIC/Cracking/MyW/1440		Business Process	(1) 1. Why did K-830 1st stage cylinder get hot? A 1st stage

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38107	Richmond, CA - Refinery	5/22/2012 2:00:00 PM	Closed	Loss	K-930 hot 1st stage discharge	Shortly after placing K-911C back in service after a filter change out, K-930 1st stage discharge temperature jumped, exceeding 400F. This required K-930 to be shutdown.	Equipment/Property Damage	cylinder discharge valve was damaged? 2. Why was the discharge valve damaged? The discharge valve was damaged because it was plugged up with hydrated iron chlorides upstream in C-960 chloride scrubber, iron scale in piping systems and chlorides combine to form iron chloride material. 3. Why was the valve plugged up with hydrated iron chlorides? The valve was plugged up with hydrated iron chloride material. A small volume of water in the piping system is sufficient to break loose material that has accumulated on the pipe walls. 4A. Why was there water present in the piping system? Water remained in the piping following commissioning of K-911C filter coalescer. 7A. Why did water remain in the system following commissioning of K-911C? Water accumulated in piping between equipment block valves with K-911C out of service for filter change. 8A. Why did water accumulate in the piping? There is no procedure for commissioning K-911C. For example, a procedure would indicate valve orientation, blow down points, where to blow down piping, etc. 9A. Why was there no procedure to commission K-911C? The MOC process at the point where K-911C was installed did not recognize the risk to downstream equipment
3810	Richmond, CA - Refinery	5/21/2012 10:00:00 AM	Closed	Loss	Oil fill mbs identified utility pipeline (identified on ISO drawing as Dead Sewer Line)	During the Capital project job to modify the H2C Pipeline, a mbs identified construction drawing showed a fresh water line as a dead sewer line. The line was painted orange for demo and cut tape was applied in preparation to verify pipeline condition. Contractor with operation standing by drilled into the line assuming that it was a sewer line as indicated on the ISO drawings. After drilling the line fresh water came out the drilled hole and was immediately plugged with a tapered plug.	Operational Process/Procedures	(1) (1) Drawing in execution package mbs identified the fresh water line as a sewer line. (2) 2) No positive isolation by Operations before releasing line. (3) (3) Change of conditions were not effectively communicated in several areas (1) 1. Why was hydrocarbon vented to atmosphere? A drain valve was left in the open position. The natural gas sub system was being put in service as part of the F-3930 recommissioning project. 2. Why was the drain valve left in the open position? The natural gas system was commissioned without verifying that all valve line ups were correct to avoid unintended flow in the line. 3. Why was the system commissioned without verifying all valve line ups were correct? A thorough review of the system was not completed. The system did not occur. 4. Why did a thorough field walk not occur prior to commissioning? The Operator was primarily focused on attaching blinds and vents to atmosphere during his field walk and didn't understand the new line routing which tied the open drain valve into the flare (previously drained to pad). He also assumed that others working the project had checked line ups. 5. Why didn't the Operator take the time to understand the system and walk it down himself thoroughly to ensure all line ups were correct? In the past this had been done and no incident occurred (factor B) 5A. (from 4) Why wasn't it clear if a thorough field walk and line up check had been completed? An Operational Readiness Review Checklist (ORRC) and yellow line review of this sub system had not been completed. The Management of Change (MOC) for this sub system had also not been signed off in the database 6A. Why was an ORRC and documented yellow line review not completed? Team didn't understand those to be required for subsystem commissioning. The plan was to complete the ORRC as part of the final P-S&U Safety Review (PSSR) prior to full project commissioning of the unit. Yellow line reviews are considered a best practice for verifying the integrity of complex systems as part of the final PSSR process 7A. Why are ORRCs and yellow line reviews not required prior to commissioning subsystems? In the past sub systems
	Richmond, CA - Refinery	5/21/2012 12:00:00	Stewardship		Natural gas release during commission of new flare	During commission of natural gas system and the in-line filter for F3950 a low point drain valve was left in the open position and was not identified when the system was field walked. This allowed natural gas to vent through the low point		

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38289	CA - Refinery	5/24/2012 PM	Closed	Loss	Chevron EE slung by bee on hand	on the left hand by a bee that was on a chair in an office on the 2nd floor of the Admin Building	ML-Injury/Illness - Employee Injury	
38289	CA - Refinery	5/24/2012 PM	Closed	Loss	Chevron EE slung by bee on hand	Chevron employee in the Strategy and Long Range Planning group was slung on the left hand by a bee that was on a chair in an office on the 2nd floor of the Admin Building	ML-Injury/Illness	
38289	CA - Refinery	5/25/2012 AM	Closed	Loss	LOTO box for P-1165 was missing operations key.	LOTO box for P-1165 was missing operations key.	ML-Operational Process/Procedures - Safety Systems	
38300	Richmond, CA - Refinery	4/8/2012 6:00:00 AM	Closed	Loss	A plug was left uninstalled in a pinion bearing during last year's overhaul performed outside repair shop. The plug is installed in a port connected to the pressurized oil gallery on the low speed output side of the gear. This was the cause of the internal leakage and inability to hold pressure in the oil gallery. This a warranty repair.	A plug was left uninstalled in a pinion bearing during last year's overhaul performed outside repair shop. The plug is installed in a port connected to the pressurized oil gallery on the low speed output side of the gear. This was the cause of the internal leakage and inability to hold pressure in the oil gallery. This a warranty repair.	Quality	(1) Lack of Luffin shop procedure for rebuilt bearings
38635	Richmond, CA - Refinery	5/28/2012 8:07:00 AM	Closed	Loss	Unauthorized key holder opened the locked cabinet containing the PMI analyzer guns.	An unauthorized key holder had opened the locked cabinet containing the PMI analyzer gun which are regulated radioactive equipment by the State of California -Department of Public Health, CA code of Regulations, Title 17, Section 40253, INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT.	ML-Regulatory Compliance - Non Company Policy	(1) No key control process in place for access to PMI cabinet. (2) The NRC PMI analyzer technicians did not always adhere to the policy to ensure the analyzers were returned to the cabinet immediately after use
38643	Richmond, CA - Refinery	5/24/2012 12:00:00 AM	Closed	Loss	Lost key to LOTO BOX	Lost key to LOTO box	Business Process	(1) Key not put in LOTO box
38683	Richmond, CA - Refinery	5/24/2012 12:00:00 PM	Closed	Loss	Contract employee found without SSE sticker on headstail	Employee found working without SSE sticker on headstail	ML-Lessons Learned	
38682	Richmond, CA - Refinery	5/30/2012 12:30:00 PM	Closed	Loss	EE was hit on the finger by a bolt that was being cleaned on a stationary wire wheel.	EE was cleaning a 1/2" x 1 1/4" bolt with a stationary wire wheel when the bolt spun out of the hands causing the bolt to strike the side of the left index finger within the first two joints. The EE was not wearing gloves due to the nature of rolling equipment. Nomex long sleeves and safety glasses were being used.	ML-Injury/Illness - Employee Injury	(1) EE lost grip while holding a bolt.
38682	Richmond, CA - Refinery	5/30/2012 12:30:00 PM	Closed	Loss	EE was hit on the finger by a bolt that was being cleaned on a stationary wire wheel.	EE was cleaning a 1/2" x 1 1/4" bolt with a stationary wire wheel when the bolt spun out of the hands causing the bolt to strike the side of the left index finger within the first two joints. The EE was not wearing gloves due to the nature of rolling equipment. Nomex long sleeves and safety glasses were being used.	Injury/Illness	(1) EE lost grip while holding a bolt.
38683	Richmond, CA - Refinery	5/30/2012 1:45:00 AM	Closed	Loss	Leaking clamp on B Office HULL box (C-100) to secondary containment)	Operators discovered a leaking clamp on the B Office HULL line at #1 Pump Station. The leak was due to the line pressure increasing due to leak of line to be less than 1 barrel. This segment of line is not protected by PFD's.	ML-Environmental - Operational Leak	(1) Lack of understanding regarding over pressure protection on lines without PFD's.
38700	Richmond, CA - Refinery	5/30/2012 4:08:00 PM	Closed	Loss	Contract EE splashed clean solution into his right eye.	Contract EE working at T-879 as a hole watch was assisting a co-worker who was exiting the tank. The hole watch grabbed a rag soaked in a diluted clean solution to wipe off the face shield of the EE exiting the tank. As he wiped the rag shield the end of the rag struck the diluted solution into the air hitting behind the EE safety glasses into his right eye. The contract EE immediately closed his eyes with water from the portable safety shower/eye wash at the job site.	Injury/Illness	(1) Solution splashed into the EE eye because required PPE was not designed to protect against liquid splash (1) The expectation of or instruction as to which End of Blend Report should be used has not been effectively communicated to operations. Operations do not have a clear report we should be using. (2) Operator did not thoroughly review the End of Blend Report(s) and/or communicate findings to HIO.
38732	Richmond, CA - Refinery	5/29/2012 3:00:00 PM	Closed	Loss	T-991 premium gasoline tank oil test for octane no communication given to planning.	T-991 premium gasoline tank oil test for octane not communicated to planning.	ML-Operational Process/Procedures - Safety Systems	
38756	Richmond, CA - Refinery	5/15/2012 6:45:00 AM	Closed	Loss	Green Card - Drain	10 feet west of V-1052 there is a drain sticking up creating a tripping hazard. To test south of F-510 there is an overhead steam leak that needs to be fixed. Hot condensate is dripping onto the walkway underneath the leak. Will need scaffolding to reach and will need to remove insulation.	ML-Injury/Illness - Contractor Injury	
38756	Richmond, CA - Refinery	5/15/2012 6:45:00 AM	Closed	Loss	Green Card - Steam Leak	10 feet south of F-510 there is an overhead steam leak that needs to be fixed. Hot condensate is dripping onto the walkway underneath the leak. Will need scaffolding to reach and will need to remove insulation.	ML-Environmental - Operational Leak	
38756	Richmond, CA - Refinery	5/15/2012 6:45:00 AM	Closed	Loss	Green Card - Smoke oil at 132ft was releasing an			

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38757	CA - Refinery	12:58:00	Closed	Near Loss	Intolerable amount of smoke	Three contract employees recognized that the smoke pit was missing an intolerable amount of smoke.	NL-Fire/Explosion	
38758	Richmond CA - Refinery	5/15/2012 7:30:00	Closed	Near Loss	GREEN CARD - Steam Leak	GREEN CARD - Bad overhead steam leak next to F-914 leading down onto walkway. Leaking condensate is very hot!	NL-Environmental - Operational Leak	
38759	Richmond CA - Refinery	5/25/2012 7:30:00	Closed	Near Loss	Green Card - Rubber stealing out on walkway between Boiler #3 & #4	A piece of rubber keeps on sticking up in the walkway between boiler #4 & #3. We step on it to put it back down.	NL-Injury/Illness - Contractor Injury	
38760	Richmond CA - Refinery	5/19/2012 7:40:00	Closed	Near Loss	GREEN CARD - Entry permit with wrong date	GREEN CARD - The entry permit for K-910 was wrong. The operator signed the date as 4/19 instead of 5/19	NL-Quality - Paperwork Incorrect/Not Sent	
38761	Richmond CA - Refinery	5/16/2012 12:00:00	Closed	Near Loss	GREEN CARD - Steam Leak	GREEN CARD - While walking through the pipe alley in between 11 & 13 pumps I slipped but caught my balance. I could not see the oil substance due to a major steam leak in the area.	NL-Injury/Illness - Contractor Injury	
38764	Richmond CA - Refinery	5/14/2012 12:00:00	Closed	Near Loss	GREEN CARD - Oily Surfaces in RLOP	GREEN CARD - I have realized that RLOP is notorious for oily surfaces, more than other units. I also realized that we cannot go and put grip tape throughout the entire refinery, but how about if RLOP Plants (11, 12, & 13) could have grip tape on the stairs and ladder rungs?	NL-Injury/Illness - Contractor Injury	
38767	Richmond CA - Refinery	5/20/2012 3:00:00	Closed	Loss	Crew was cutting a squared hole in bathroom wall to gain access to repair a urinal drain pipe. In doing the cutting of plywood wall, employees cut water line.	Employees were cutting a hole in the wall of main bathroom to gain access for another contractor to repair drain line. While cutting the wall with a sawzall, employee cut a water line that was next to drain pipe. Water line was not shut off causing water to spit throughout the bathroom and into the hallway.	Equipment/Property Damage	(1) Employee assumed water was shut off. Water line was not identified.
38773	Richmond CA - Refinery	5/20/2012 12:00:00	Closed	Near Loss	GREEN CARD - Steam Leak	Green Card - While driving by the alley southeast of the D&R control room I saw that there was a major steam leak.	NL-Environmental - Operational Leak	
38774	Richmond CA - Refinery	5/16/2012 8:40:00	Closed	Near Loss	Green Card - Bizarre Smell	Green Card - Strong bizarre smell coming from underneath Reactor #3560	NL-Regulatory Compliance - Non Compliance - Air	
38775	Richmond CA - Refinery	5/21/2012 4:00:00	Closed	Near Loss	Green Card - Bad Permit	Green Card - Pointed out to the operator that the non flammable permit needed to be updated before the company started bluffing.	NL-Quality - Paperwork Incorrect/Not Sent	
38777	Richmond CA - Refinery	5/15/2012 12:00:00	Closed	Near Loss	Green Card - Steam Leaks	Green Card - While walking throughout 11, 12, & 13 plants, I noticed a lot of condensation and steam coming out of steam without any warning. I retrieved caution tape and blocked surrounding area.	NL-Injury/Illness - Contractor Injury	
38778	Richmond CA - Refinery	5/15/2012 8:30:00	Closed	Near Loss	Green Card - 00 degree invisible bump	Green Card - In the parking lot on the northwest corner of the control room has a steep 90 degree bump that is not visible until you hit it.	NL-Injury/Illness - Contractor Injury	
38793	Richmond CA - Refinery	5/25/2012 2:00:00	Closed	Near Loss	PD-25 failed to lift at 125% of set for recertification.	The steam drum safety for #3 boiler at the # 1 Power Plant was removed for recertification by Code VR shop. Swan Associates PD-25 was pretested at the shop and failed to lift at 125% of 892 psig set pressure. Chevron was notified for instructions. Disassembly was stopped until the shop was visited by representatives from Engineering, Inspection and Quality Management to witness disassembly.	NL-Operational Process/Procedures - Pressure Relief Devices (PRD)	(1) Normal wear and tear
38820	Richmond CA - Refinery	5/15/2012 12:00:00	Closed	Near Loss	IL-1692 Initial Pop <80% of Set Pressure	IL-1822 Thermal protection for the 18 plant recovered oil line to the plant boundary was removed and secured for API compliance. During the initial pop test the valve relieved at 85 psig (-80% of GSP). The cold set pressure for this valve is 245 psig.	NL-Operational Process/Procedures - Safety Systems	(1) Normal wear from valve relieving due to blocked in status and run over pressuring the line.
38892	Richmond CA - Refinery	5/20/2012 12:00:00	Closed	Near Loss	Late shipment of APS	No APS injection to the FCC overhead system on account that the supply wasn't replenished.	NL-Quality - Late Shipment	(1) Why Did PSV IX7141 on V-712 LMP? The PSV lifted due to overpressure condition on V-712. Why was there an overpressure condition on V-712? The overpressure condition on V-712 was due to the output on 73P-C710 closing off. Why was the output on 73P-C710 closing off? The output on 73P-C710 was closing off because the pressure indicator was showing the pressure was decreasing in V-712. Why was the pressure indication decreasing in V-712? Pressure indication was decreasing in V-712 due to plugging in the pressure

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39067	Refinery	AM	Closed	Loss	work	EE reported having a sore back when the came to work	Employee Injury	
39095	Richmond, CA - Refinery	6/13/2012 12:00:00 AM	Closed	Near Loss	High Nickel at the Bico reactor Outlet	Sudden spikes of Nickel at the bico reactor inlet has generated concern. The typical concentrations at the bico reactor inlet are <0.01 ppm. Recent activity shows the bico reactor inlet Nickel concentration spiking to 0.8 ppm and subsequent spikes in the bico reactor outlet. Currently, the Nickel (spending limit is 1-ppm and the compliance sample point downstream of the bico reactor. Also, high nickel could potentially pose a threat to the upcoming quarterly chronic toxicity testing. The next test could be performed as early as the week of July 1, 2012	NL-Regulatory Compliance - Non Compliance - Water	(1) Catalyst reactor wash water was dropped at an unknown time not anti created. (2) Reactor wash water ICP metals results were not representative of the water dropped due to particulate metal that could be formed in water <8 pH.
39136	Richmond, CA - Refinery	6/6/2012 12:00:00 AM	Closed	Near Loss	Control Radio failure	Radio #1 is control channel on the main radio system. The radio failed to operate leaving the refinery with one less control radio and one less radio for use.	NL-Business Process	
39140	Richmond, CA - Refinery	6/6/2012 12:58:00 AM	Closed	Near Loss	While calibrating a Cat feed meter, feed was temporarily tripped.	4 Cat feed meter needed to be calibrated for process balance monitoring. While attempting to zero the "B" feed meter, feed was momentarily dropped. Did not approve operator rounds, however the issues at R-430E were handled in a safe manner and everyone went home in the same condition that they showed up for work that day. Things could have been different in the plant if stop work authority wasn't used	NL-Operational Process/Procedures - Safety Systems	(1) No trigger to remind Ops and Maint about risk of feed trips when working on feed meters. (2) Ops and maint did not recognize the risk of feed chop.
39144	Richmond, CA - Refinery	6/6/2012 12:00:00 AM	Closed	Near Loss	Didn't approve rounds, sorry Jim human		NL-Quality - Paperwork Incorrect/Not Sent	
39151	Richmond, CA - Refinery	6/22/2012 12:00:00 AM	Investigation in Progress	Loss	HNC was at reduced feed rates due to nitrogen results being above the max limit of 1.5 ppm (samples sent to QCD every day at 12 AM). A check sample was sent to ETC for HNC 6 S/C Waxy 220 and had a much lower result 0.5 ppm.	HNC feed was below plan due to high 6 S/C Waxy 220 and bottom Waxy 600 product nitrogen results that were above the high limit of 1.5 ppm since 6/17/12. The LNF was starting the first 220R run on the new catalyst load and due to concerns of high nitrogen feed deactivating the new catalyst, a check sample was pulled on the HNC 6 S/C Waxy 220 stream and sent to ETC. The QCD result at 6/4 12 AM was 2.8 ppm, a check sample to ETC at 6/4 12 PM was 0.47 ppm per ETC (the overall CAT remained within 1 deg F), and the following QCD sample on 6/5 12 AM was 1.5 ppm. The following day on 6/6, the QCD Waxy 220 and Waxy 600 nitrogen results moved in opposite directions although the HNC reactor CAT slightly increased. The Waxy 220 N2 was 0.8 ppm (decreased from 1.5 ppm) while the Waxy 600 N2 was 2.3 ppm (increased from 1.3 ppm). Due to the high nitrogen results for multiple days, the HNC averaged 0.62 MBPD below plan valued at \$122M (the LFO would have been higher but HNC Waxy 220 production was being overboarded to an off-plant loading due to limited inventory through 6/5 9 PM).	Quality	
39151	Richmond, CA - Refinery	6/22/2012 12:00:00 AM	Investigation in Progress	Loss	HNC was at reduced feed rates due to nitrogen results being above the max limit of 1.5 ppm (samples sent to QCD every day at 12 AM). A check sample was sent to ETC for HNC 6 S/C Waxy 220 and had a much lower result 0.5 ppm.	HNC feed was below plan due to high 6 S/C Waxy 220 and bottom Waxy 600 product nitrogen results that were above the high limit of 1.5 ppm since 6/17/12. The LNF was starting the first 220R run on the new catalyst load and due to concerns of high nitrogen feed deactivating the new catalyst, a check sample was pulled on the HNC 6 S/C Waxy 220 stream and sent to ETC. The QCD result at 6/4 12 AM was 2.8 ppm, a check sample to ETC at 6/4 12 PM was 0.47 ppm per ETC (the overall CAT remained within 1 deg F), and the following QCD sample on 6/5 12 AM was 1.5 ppm. The following day on 6/6, the QCD Waxy 220 and Waxy 600 nitrogen results moved in opposite directions although the HNC reactor CAT slightly increased. The Waxy 220 N2 was 0.8 ppm (decreased from 1.5 ppm) while the Waxy 600 N2 was 2.3 ppm (increased from 1.3 ppm). Due to the high nitrogen results for multiple days, the HNC averaged 0.62 MBPD below plan valued at \$122M (the LFO would have been higher but HNC Waxy 220 production was being overboarded to an off-plant loading due to limited inventory through 6/5 9 PM).	Business Process	
39158	Richmond, CA - Refinery	6/6/2012 12:00:00 AM	Closed	Near Loss	Chevron employee made unsafe left turn around forklift on Channel St	Contractor driving forklift north on Channel St was stopped and using hand signal to indicate intention to turn left on to Foundation Street while waiting for opposing traffic to clear. Chevron pickup (driven by a Chevron employee - identifiable by his coveralls) came up behind the forklift and passed on the left, driving on the wrong side of the road, before himself making a left turn on to Foundation Street. A contractor driven vehicle coming south on Channel St was forced to come to a stop to avoid a collision. Chevron pickup did not stop.	NL-Transportation - Company	
39169	Richmond, CA - Refinery	6/15/2012 8:15:00 AM	Closed	Near Loss	Personal H2S monitor activated	While performing de-sludging activities at #13 separator, three contract employees personal H2S monitors were activated	NL-Operational Process/Procedures - Safety Systems	
39161	Richmond, CA - Refinery	6/6/2012 3:00:00 PM	Closed	Loss	About 146 lb of Natural gas was released to the atmosphere when the Natural gas PRD lifted	Due to the type of product that Vessel 55 Stores had on its previous voyage, the vapor recovery needs to be in place while loading fuel. After loading fuel, oil, and after shutting down the vapor recovery in both #3, the natural gas pressure went up and caused the PRD to relieve for 8 mins. Further investigation showed that the natural gas pressure control was switched from auto to manual control last June 6 Nightshift.	Environmental	(1) The guideline on the pressure control of the natural gas was not consistently implemented. (2) Turnover between the nightshift and dayshift Board Operators was less than required and failed to highlight that the natural gas reader pressure control was switched to manual mode. (3) As a result of the PRD lifting to the atmosphere, the following action items will be taken into compliance with the requirement of the Air District. (1) The guideline on the pressure control of the natural gas was not consistently implemented. (2) Turnover between the nightshift and dayshift Board Operators was less than

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39161	Richmond, CA - Refinery	6/6/2012 3:00:00 PM	Closed	Loss	About 145 lb of Natural Gas was released to the atmosphere when the Natural Gas PZO lifted.	Loss of Confinement	adequate and failed to highlight that the natural gas header was not properly secured to manual mode, (c) As a result of the PZO lifting, the atmosphere was not properly secured to manual mode, (d) The action items will be taken to be in compliance with the requirement of the Air District.
39163	Richmond, CA - Refinery	6/7/2012 12:00:00 AM	Closed	Loss	Tank #79 Clean up Cost Overrun	Business Process	(1) Representative sample was not available. Inadequate procedures on running mixers on LCO/Cutler terms.
39212	Richmond, CA - Refinery	6/24/2012 9:23:00 PM	Rect. Gathering	Near Loss	Cracking LCN History Data Gaps	NL-Business Process - Business Interruption	(1) LCN loading increase
39236	Richmond, CA - Refinery	5/28/2012 1:30:00 PM	Closed	Loss	Green Card, An operator should be in cab at all times. Location: Wash Pad	NL-Injury/Illness - Contractor Injury	
39237	Richmond, CA - Refinery	6/7/2012 10:30:00 AM	Closed	Loss	Process sewer line overflowed into 100' channel behind fire drill grounds due to excessive flow/restricted line	NL-Environmental - Spill	(1) The fire water flow into the manhole exceeded the flow capacity of the 10" line exiting the manhole resulting in an overflow. It is believed the 10" line is partially plugged with solids.
39238	Richmond, CA - Refinery	5/28/2012 2:30:00 AM	Closed	Loss	Green Card, Big potholes near road repair. Location: Ranch North Yard	NL-Transportation - Contractor	
39240	Richmond, CA - Refinery	5/29/2012 7:30:00 PM	Closed	Near Loss	Green Card, A worker entering fresh air area with dirtied tank. Location: RLOP-13 Plant	NL-Injury/Illness - Contractor Injury	
39243	Richmond, CA - Refinery	5/29/2012 6:30:00 PM	Closed	Near Loss	Green Card, Several workers entering fresh air area via fire barricade. Location: RLOP-13 Plant	NL-Injury/Illness - Contractor Injury	
39244	Richmond, CA - Refinery	5/29/2012 6:45:00 AM	Closed	Near Loss	Green Card, Small paint particles on the stairs and ramp. Location: Gate 91 Training Bldg	NL-Injury/Illness - Employee Injury	
39247	Richmond, CA - Refinery	5/24/2012 2:00:00 PM	Closed	Loss	Green Card, Tank T-1108 2" Bleeder missing a plug. Location: 4 Cell	NL-Environmental - Operational Leak	
39248	Richmond, CA - Refinery	6/7/2012 6:00:00 AM	Closed	Near Loss	Green Card, A bid stream tank overhauled to walkway. Location: DSR P-1148	NL-Environmental - Operational Leak	
39250	Richmond, CA - Refinery	6/4/2012 9:00:00 AM	Closed	Near Loss	Green Card, Valve steam leak. Location: DSR 30' West of V-1198	NL-Environmental - Operational Leak	
39251	Richmond, CA - Refinery	6/4/2012 6:00:00 AM	Closed	Near Loss	Green Card, Overhead steam leak. Location: DSR P-1178	NL-Environmental - Operational Leak	
39252	Richmond, CA - Refinery	6/6/2012 8:00:00 AM	Closed	Near Loss	Green Card, Anchor bolt missing on the ground. Location: NHTFF-410, West of F-410 Burner #8	NL-Injury/Illness - Contractor Injury	
39253	Richmond, CA - Refinery	6/6/2012 10:00:00 PM	Closed	Near Loss	Green Card, Steam leak on steam trap continuously. Leak leaking for a long time. Location: SISO/Jourbury to NISO, 488 Platform 83' Seum	NL-Environmental - Operational Leak	
39254	Richmond, CA - Refinery	6/6/2012 2:30:00 PM	Closed	Near Loss	Green Card, A tankboard came off from weld by the railing. Location: SISO, F-355 C-Cell South by Burner #4, Lower deck	NL-Injury/Illness - Employee Injury	

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39259	Richmond, CA - Refinery	6/7/2012 3:30:00 PM	Closed	Near Loss	Vehicle left running and was unoccupied	Assistant came inside to check and see where the was. The assistant did not know where the vehicle was and left it running in the parking lot. Told to Technician to check on the vehicle and see if it was running and leaving them running unattended, which is not permitted. I got a commitment from them both to heighten their awareness in all of their activities. Safety meeting will be held again on Monday morning discussing the Topic of vehicle safety and the Rules and Regulations in the Refinery.	NL-Transportation - Contractor	(1) FIVE WHY Incident Number: 39372 Business Unit/USE Name: Distribution Facility Name: Marketing- Truck Location: Racks Incident date: 6/9/2012 Type of Process: Fresh Water Type of Equipment: Utility System Team Members: D Zimmerman Steacy Reynolds Incident Description: What: Truck loading racks lost all fresh water for fire protection/drink water. Where (location or where in the process): Mainline - Richmond When: Occurred on 6/9 Day Shift How: Incorrect P&ID's drawing for this area. Problem Statement (What is the key issue that needs to be addressed?): Review P&ID to reflect the customers associated with fresh water on drawing #s 325126 / 325128-12 FIVE WHY'S 1. Why did above happen? Verification Fresh water isolation was performed by Utilities Operators for maintenance. 2. Why did "1" happen? Isolation verification was performed and customers notified as per P&ID #s 325126/325128-3. Why did "2" happen? Truck Racks was not an indicated customer of this service. Isolation not notified 4. Why did "3" happen? The Rack operators noticed the USE A&B that they were with no fresh water to their facilities and needed to start operations for 2 hours COOT CAUSE: What was the Root Cause of your Incident? S&D Operators using P&ID's and field verification required S&D Operators with incorrect changes. LPS Factor Factor E: Lack of / Inadequate Operational Procedures or Work Standards Solution: Develop/Amend Procedure Describe specifically the changes to be made to an existing procedure or the procedure to be developed. (2) FIVE WHY Incident Number: 39372 Business Unit/USE Name: Distribution Facility Name of Incident: Fresh Water Type of Equipment: Utility System Team Members: D Zimmerman Steacy Reynolds Incident
39372	Richmond, CA - Refinery	6/9/2012 11:40:00 AM	Investigation In Progress	Near Loss	Loss of fresh water to loading racks.	A Utility system isolation was required for the maintenance crew to replace a fresh water monitor. This isolation required communication with all customers associated with the isolation according to current area P&ID's. This was completed before isolation started. However, the Truck Loading Facilities outside the refinery had a disruption of fresh water for approx. 2 hours. Without this water, the racks seized operation due to loss of fire protection system.	NL-Business Process - Business Interruption	(1) Temperature monitoring was not sufficient to reliably determine the actual temperature of the stator. (2) Cooling flow/capacity was inadequate to keep the motor within its design temperature limits. (3) Alarms and automatic SD instrumentation is inadequate to protect the motor from overheating. Temperature information is not integrated into the DCS system, inhibiting the troubleshooting and failure finding for Reliability Analysts. (4) Risk of failure was not properly defined and prioritized to manage replacements of equipment.
39394	Richmond, CA - Refinery	6/13/2012 12:00:00 AM	Closed	Loss	MK-910 found to have extensive damage	K-910 was shutdown on 5/13/12 for scheduled 5 year electrical PM work. During the inspection extensive motor damage was discovered. The motor was pulled and sent to Koffler Electrical for inspection and repair. The original repair was scheduled for six days and the entire repair actually took 20 days. This damage is believed to have been caused by excessive heat.	Equipment/Property Damage	(1) Why did K-940 #2 cylinder and #4 cylinder experience valve damage. Because the discharge temperatures got too high to cause physical damage. Why did the discharge temperatures get too high. Exact cause cannot be determined at this time. Maintenance could not determine anything out of the ordinary that specifically caused valve damage.
39395	Richmond, CA - Refinery	5/25/2012 10:00:00 PM	Closed	Loss	K-940 shutdown for packing leak and valve damage	K-940 was seeing elevated temperatures on 2nd stage discharge plus a packing leak was discovered.	Equipment/Property Damage	
39445	Richmond, CA - Refinery	6/6/2012 6:00:00 PM	Closed	Near Loss	Green Card - While driving out of the Tech Center someone smoking a cigarette in the parking lot. I asked back in and I asked them to put the cigarette out. I let them know what our policy is and pointed them in the direction of the nearest smoking post. They thanked me for telling them know what our policy is.	NL-Persons Learned		
39448	Richmond, CA - Refinery	6/6/2012 8:00:00 AM	Closed	Near Loss	Green Card. Security personnel exiting their vehicles while still running to open gates. Location: Gate 81	Green Card. Security personnel have been seen exiting their vehicles and leaving them running while opening gates. This is a violation of Chevron policy because it is a dangerous thing to do and has gotten people injured in the past.	NL-Injury/Illness - Contractor Injury	(1) Exhaust System in RM1107 lacks sufficient ventilation to safely perform density analysis, outside of fume hood, particularly on trace samples containing elevated concentrations of H2S. (2) Communicate to Operators the need to increase their awareness of their exposure to H2S in samples while measuring gravities outside of hood. Samples

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39480	Richmond, CA - Refinery	6/12/2012 8:00:00 AM	Investigation In Progress	Loss	Vacuum truck stuck on damaged clear space chain	Transportation	him. During the investigation he mentioned that he felt uncomfortable prior to "tipping." Why didn't the driver exert stop work authority when he felt uncomfortable attempting to clear an obviously low clearance area? The desire to please the operators he was working with out-weighted his concern over making it under the clearance, besides they were going to spot him. Why didn't the driver call his supervisor to know his supervisor was very busy at that time, and tell that him in to the area he would be okay to proceed without involving his supervisor.
39490	Richmond, CA - Refinery	6/13/2012 6:31:00 PM	Closed	Loss	Technician was VOC monitoring at T-3102 and his work touch steam tracing.	Injury/Illness	(1) Although hot surface was mentioned in S&A, Steam tracing was not listed. Being more specific when identifying hazards would greatly decrease likelyhood of burn.
39524	Richmond, CA - Refinery	6/16/2012 12:00:00 AM	Fact Gathering	Near Loss	Low aromatic in MEA solution, below lower limit of 100ppm	NL-Equipment/Property Damage - Equipment	(1) Process and frequency for checking aromatic results in MEA is not defined. Responsibility for following up on missing or off-test results is unclear. (2) Older MDX instrument used for aromatic analysis is out of service. Instrument is at EOL and replacement cost of HYPs is not justifiable. (3) Increased usage rate of MEA and aromatic depletion at A Train. (4) Operator did rely on PlantDoc for results, whereas QCCO Operator should have equipment database to capture results and comments.
39537	Richmond, CA - Refinery	6/17/2012 5:50:00 AM	Closed	Near Loss	K300A compressor shutdown	NL-Operational Process/Hazards - Plant Run Out/Slow Down	(1) see attached link to the right for 5-min report
39577	Richmond, CA - Refinery	6/19/2012 7:15:00 AM	Closed	Near Loss	Operator uses Shop Work Authority on Welding Job	NL-Business Process	(1) Plant boundaries are not clearly defined. (2) Lack of communication of the ownership of the area. (3) RI-341 working around the 35 ft from plant boundary needs improvement. (4) Signage on #6 substation which states no work can be done within 100 ft of this substation has brought some confusion as to what specific work can and cannot be done there
39580	Richmond, CA - Refinery	6/20/2012 5:00:00 AM	Closed	Near Loss	On Deck Security for the personal cell phone on deck while the vessel was loading gasoline.	NL-Security - Misconduct by Employee or Third-Party - Policy Violations	
39616	Richmond, CA - Refinery	6/22/2012 3:00:00 PM	Closed	Near Loss	Contractor's personal H2S monitor alarmed	NL-Injury/Illness - Contractor Injury	(1) Line was not tagged out of service/DN NoI Use. (2) Hydrocarbon entered plant air service/DN NoI Use.
39618	Richmond, CA - Refinery	6/11/2012 12:00:00 AM	Closed	Near Loss	Hydrocarbon Found In Air Line	NL-Lessons Learned	
39652	Richmond, CA - Refinery	6/14/2012 5:34:00 AM	Closed	Near Loss	Man Gate - Barrier arm hit an individual on the head	NL-Injury/Illness - Employee Injury	

39600	Richmond CA - Refinery	6/14/2012 12:36:00 PM	Closed	Near Loss	Green Card - Contractor doing repairs R/R tracks	Contractor was doing repairs on R/R track and was using a chain attached to the vertical structure of the tankender (Straddle) fork carriage. Contractor must use manufacturer's approved method of lifting loads.	Equipment/Property Damage - Equipment Damage	(1) Momentarily distracted while driving. Investigation reveals the supervisor was reaching over to adjust the heat in her vehicle, and in so doing, cause the steering wheel to turn left while she was reaching to her right. By the time she immediately realized her judgment error and corrected her steering, the vehicle had come in contact with the "K-Rail" - type plastic delineator that was there as a fence protection device on a work site where there were steel plates across the road, and delineators and caution tape on both sides of the road which also caused the roadway to be narrower than normal for passing and turning. The car was able to correct her path and turn around the corner. The supervisor and with minor cosmetic damage to the contractor vehicle.
39716	Richmond CA - Refinery	6/14/2012 10:20:00 PM	Closed	Loss	Vehicle made contact with delineator resulting in a deformed fender.	At approximately 20:20 hrs the patrol officer was driving down Xylene Street in Richmond, CA. The officer noticed a red light and the left front fender made contact with a steel post. This contact resulted in a scrape and small dent in the patrol vehicles left front fender and left front door. There was no damage to the delineator.	Transportation	(1) Why? Cisco Switch that was approximately two years old failed. Why? Initial examination does not reveal a root cause. Power supply was checked, unit was visually inspected and boards were clean and not dirty or dusty. SFR uplink connection module was checked, in proper working condition. Diagnostics started on issues and it was inconclusive. A different version of the Cisco switch was already installed (an older version, newer was already installed) and that did not fix anything. Why? Our investigation into failure root cause has been inconclusive to this point. Possible theories are it has a bad motherboard that fails periodically. Unit has been replaced and new unit has been running fine for past two months. Unit is continuing to be monitored to see if we can determine a root cause and repair it. If not, then we will dispose of the unit. There is no existing service contract on this piece of equipment. Why? Failure of electronic module used in the Network infrastructure that no root cause has been able to be determined. Unit will be retired if we are not able to correct its current unstable state.
39723	Richmond CA - Refinery	6/14/2012 12:00:00 AM	Investigation In Progress	Near Loss	Network Switch failed	Network switch failed, rendering all GIL network services inaccessible at the South Isotrex Outside Control Room. The duration the GIL network services for that location were unavailable was approximately 12 hours. The number of people affected were the 23 operators on shift at that control house during the failure. Turnover and initial the downtime could still be accomplished at the main hydroprocessing Control Center. Since we had a replacement network switch in our inventory, the cost of the incident was the one network analyst time to replace the switch, which is \$1500.	NL-Business Process - Business - Interruption	
39728	Richmond CA - Refinery	6/14/2012 9:33:00 PM	Closed	Near Loss	Green Card, Walkway planks are deteriorated, Location West end of Poly Plant	Missing hand rail and midrails. Poles and header shaky. Stairs starting to rot. This is access to 8" twin seal valve with VOC 1 tag 0120-00113 attached, 6" insulated pipe marked 1300A Line. Location: Pole S1 across from west end of Poly Plant. Dashed metal shed with dog house Alky-Poly Mtnl. J5570 stenciled on door. Next to walkway leading up to Poly Cooling Water Tower.	NL-Injury/Illness - Contractor Injury	
39731	Richmond CA - Refinery	6/14/2012 3:00:00 PM	Closed	Near Loss	Slight Jet Hydrcoation Line/Dead Leg	Slight Weep T-3165 Dead leg under Standard Rd discovered during inspection of the 3105 fill line.	NL-Environmental - Operational Leak	
39772	Richmond CA - Refinery	6/16/2012 12:00:00 AM	Closed	Near Loss	MCO cooler failed making header	MCO Sample cooler failed allowing MCO to back into the plant water header. This water also supplies the diluge system	NL-Environmental - Operational Leak	(1) mechanical failure and of life
39772	Richmond CA - Refinery	6/16/2012 12:00:00 AM	Closed	Near Loss	MCO cooler failed making header	MCO Sample cooler failed allowing MCO to back into the plant water header. This water also supplies the diluge system	NL-Environmental - Operational Leak	(1) mechanical failure and of life
39772	Richmond CA - Refinery	6/16/2012 12:00:00 AM	Closed	Near Loss	MCO cooler failed making header	MCO Sample cooler failed allowing MCO to back into the plant water header. This water also supplies the diluge system	NL-Environmental - Operational Leak	(1) mechanical failure and of life
39781	Richmond CA - Refinery	6/16/2012 9:00:00 PM	Closed	Loss	Operator strained muscle in leg	At approximately 9 PM on 6/16/2012 a Hydroprocessing EE was exiting off their bicycle when their leg got caught in the rotating centrifuge and the EE moved to pull their leg from the basket when they fell a lightning and pain in the back of the leg. The EE informed the HO and STL and Plant protection was called in. The EE was sent to the clinic for further evaluation.	Injury/Illness	(1) Why did Operator injured leg getting off a bicycle? Operator caught leg on rear basket of bicycle? Operator caught his leg on the rear handle of the bicycle because in stature it and the typically has spring his leg a little harder to clear the basket. It is a known hazard to the operator. Being a known hazard, the did not report it to the supervisor. Why? Proper LPSA was not performed on this hazard.
39782	Richmond CA - Refinery	6/17/2012 4:00:00 AM	Investigation In Progress	Loss	Fire in SDA P-125A sdewent pump	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. At approximately 4AM 6/17 a low seal pressure alarm engaged on the SDA P-125A on South Isotrex. Minutes later a fire monitor was set up and SDA seal was given and CRTD was called. Fire monitors were set up and CRTD seal was called. In approximately 10 minutes the fire was extinguished and a small amount of vapor continued to weep from the seal CRTD is standing by.	Loss of Containment	(1) There was an outboard seal leak the ignited starting a fire. Why was there an out board seal leak? Seal leak due to problems seal failure

Contractor was doing repairs on R/R track and was using a chain attached to the vertical structure of the tankender (Straddle) fork carriage. Contractor must use manufacturer's approved method of lifting loads.

At approximately 20:20 hrs the patrol officer was driving down Xylene Street in Richmond, CA. The officer noticed a red light and the left front fender made contact with a steel post. This contact resulted in a scrape and small dent in the patrol vehicles left front fender and left front door. There was no damage to the delineator.

Network switch failed, rendering all GIL network services inaccessible at the South Isotrex Outside Control Room. The duration the GIL network services for that location were unavailable was approximately 12 hours. The number of people affected were the 23 operators on shift at that control house during the failure. Turnover and initial the downtime could still be accomplished at the main hydroprocessing Control Center. Since we had a replacement network switch in our inventory, the cost of the incident was the one network analyst time to replace the switch, which is \$1500.

Green Card, Walkway planks are deteriorated. Has created gaps between planks. Missing hand rail and midrails. Poles and header shaky. Stairs starting to rot. This is access to 8" twin seal valve with VOC 1 tag 0120-00113 attached, 6" insulated pipe marked 1300A Line. Location: Pole S1 across from west end of Poly Plant. Dashed metal shed with dog house Alky-Poly Mtnl. J5570 stenciled on door. Next to walkway leading up to Poly Cooling Water Tower.

Slight Weep T-3165 Dead leg under Standard Rd discovered during inspection of the 3105 fill line.

MCO Sample cooler failed allowing MCO to back into the plant water header. This water also supplies the diluge system

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At approximately 9 PM on 6/16/2012 a Hydroprocessing EE was exiting off their bicycle when their leg got caught in the rotating centrifuge and the EE moved to pull their leg from the basket when they fell a lightning and pain in the back of the leg. The EE informed the HO and STL and Plant protection was called in. The EE was sent to the clinic for further evaluation.

INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. At approximately 4AM 6/17 a low seal pressure alarm engaged on the SDA P-125A on South Isotrex. Minutes later a fire monitor was set up and SDA seal was given and CRTD was called. Fire monitors were set up and CRTD seal was called. In approximately 10 minutes the fire was extinguished and a small amount of vapor continued to weep from the seal CRTD is standing by.

INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE TOP REPORT. At approximately 4AM 6/17 a low seal pressure

39782	Richmond, CA - Refinery	6/17/2012 4:00:00 AM	Investigation In Progress	Loss	Fire in SDA P-1-26A solvent pump	alarm energized on the OWS. 1 board for P-1-26A on South Isomex. Minutes later a report of a seal fire on P-1-26A outboard seal was given and CFD was called. Fire monitors were set up and CFD also put water on the pump seal. In approximately 10 minutes the fire was extinguished and a small amount of vapor continued to waft from the seal. CFD is standing by.	Fire/Explosion	(1) There was an outboard seal leak, the ignited starting a fire. Why? There was an out board seal leak? Seal leak due to probable seal failure
39687	Richmond, CA - Refinery	6/18/2012 12:00:00 AM	Closed	Near Loss	Lost key for LOTO Box In 333 installed in 2002	Must have key cut off breakers for T-3182 Mixer	NI-Operational Procedures - Safety Systems	
39684	Richmond, CA - Refinery	6/7/2012 12:00:00 AM	Investigation In Progress	Loss	Customer Cuts - Purchased Product	In June 2012 Richmond Lubricants Plant (RLP) underwent five customer cuts due to unavailable stock. The products that were unavailable are purchased from the Delta Maline plant (DLD) and stock transferred to Richmond via intermodal transit. RLP placed an order against DLD with the expected receipt date of May 31. The order requested eight different products with various quantities to make-up a full truck load. From the eight products, RLP realized five cuts pertaining to three products. The cuts could have been avoided if the shipment would have arrived on the expected receipt date. The products were May 31 although RLP did not receive until June 7. The timeline is as follows: Thus, 5/31 - Expected receipt date from DLD to RLP. 6/1 - JB Hunt (carrier) requests re-work to SLI for Chevron approval. 6/1 - SLI requests weight tickets at time of loading Mon. 6/4 - JB Hunt confirms that load was not weighed at time of loading Mon. 6/4 - Rework Approval request sent to Chevron Logistics (Logistics Manager and Transportation Specialist) Mon. 6/4 - RLP Follow-up with Schneider to understand delayed arrival of shipment Tue. 6/5 - Chevron team approves re-work Wed. 6/7 - Load arrives RLP at 5:15 am.	Business Process	(1) What? RLP experienced five customer cuts of purchased product from DLD. Why? Expected shipment from DLD arrived RLP on 6/7 instead of planned ETA of 5/31 and insufficient safety stock to cover customer orders. Why? Shipment required rework upon intermodal arrival at carrier (JB Hunt) in California before 5/31. Why? Axel weight on shipment exceed CA DOT weight restrictions. Why? Load was not scaled at origin. Why? Driver (carrier) did not follow standard protocol of scaling at origin. (2) What? Why did RLP have insufficient safety stock to cover customer orders. Why? New product so RLP has yet to understand purchasing pattern and reliable inventory strategy. Why? Demand has continuously exceeded RLP supply on these SKUs
39684	Richmond, CA - Refinery	6/7/2012 12:00:00 AM	Investigation In Progress	Loss	Customer Cuts - Purchased Product	In June 2012 Richmond Lubricants Plant (RLP) underwent five customer cuts due to unavailable stock. The products that were unavailable are purchased from the Delta Maline plant (DLD) and stock transferred to Richmond via intermodal transit. RLP placed an order against DLD with the expected receipt date of May 31. The order requested eight different products with various quantities to make-up a full truck load. From the eight products, RLP realized five cuts pertaining to three products. The cuts could have been avoided if the shipment would have arrived on the expected receipt date. The products were May 31 although RLP did not receive until June 7. The timeline is as follows: Thus, 5/31 - Expected receipt date from DLD to RLP. 6/1 - JB Hunt (carrier) requests re-work to SLI for Chevron approval. 6/1 - SLI requests weight tickets at time of loading Mon. 6/4 - JB Hunt confirms that load was not weighed at time of loading Mon. 6/4 - Rework Approval request sent to Chevron Logistics (Logistics Manager and Transportation Specialist) Mon. 6/4 - RLP Follow-up with Schneider to understand delayed arrival of shipment Tue. 6/5 - Chevron team approves re-work Wed. 6/7 - Load arrives RLP at 5:15 am.	Operational Process/Procedures	(1) What? RLP experienced five customer cuts of purchased product from DLD. Why? Expected shipment from DLD arrived RLP on 6/7 instead of planned ETA of 5/31 and insufficient safety stock to cover customer orders. Why? Shipment required rework upon intermodal arrival at carrier (JB Hunt) in California before 5/31. Why? Axel weight on shipment exceed CA DOT weight restrictions. Why? Load was not scaled at origin. Why? Driver (carrier) did not follow standard protocol of scaling at origin. (2) What? Why did RLP have insufficient safety stock to cover customer orders. Why? New product so RLP has yet to understand purchasing pattern and reliable inventory strategy. Why? Demand has continuously exceeded RLP supply on these SKUs
39686	Richmond, CA - Refinery	6/6/2012 1:00:00 PM	Closed	Near Loss	Brief Filemaker Outage	Users were not able to see filemaker data in correct form view while filemaker was being updated. Why? - Production copy of filemaker was being updated and developer had to change form view to libbo view to update the data. Why? These changes were required in table view and developer didn't switch back to form view in time	NI-Business Process - Business Interruption	
39687	Richmond, CA - Refinery	6/18/2012 2:00:00 PM	Closed	Loss	Operator reported the loss of one brass due to a bug bite	The LPG Box Operator reported to their supervisor a nuisance and swelling in one knee. The Operator believed it may have been a bug bite.	Injury/Illness	(1) Employee reported discomfort in knee with no fingering event, reported to supervisor as a precaution.

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33958	Richmond, CA - Refinery	6/18/2012 8:47:00 AM	Investigation In Progress	Loss	Loss of K-550 recycle compressor which led to 5 Rhin SID and H2 issues affecting various units.	Loss of K-550 recycle compressor upon tube oil pump P-553 & 553A APS testing. During the test session, oil discharge pressure was lost which initiated the K-550 SID. This in turn SID 5 Rhin, and caused H2 issues which affected other OER units including JHT, JHT, DHT & ARhin. Also including North Yard which fired up H2 to help out.	Operational Process/Procedures	pumps P-553-553A as part of his daily duties for 6/18/12 dayshift. A 3rd Monday of the month task as scheduled per the DGR routine duties calendar schedule. No restrictions or abnormal conditions prior to the pump APS testing. P-553 was tested at 08:43:00. Standing time on APS pump test 14:00 - 08:45. Standing time on APS pump test 14:00 - 08:43:00 The L/O pumps were in the following operating status prior to the APS testing: P-553 in "AUTO" for APS testing (Standby Mode) P-553A in "RUN" status (Operating Mode) Ops. tested P-553 for the APS test via the "Block & Bleed" method to the APS low pressure switch PCL-0558 on discharge of P-553 & APS for P-553A L/O pump which started P-553 on APS as tested with normal discharge pressure.
33959	Richmond, CA - Refinery	6/18/2012 8:47:00 AM	Investigation In Progress	Loss	Loss of K-550 recycle compressor which led to 5 Rhin SID and H2 issues affecting various units.	Loss of K-550 recycle compressor upon tube oil pump P-553 & 553A APS testing. During the test session, oil discharge pressure was lost which initiated the K-550 SID. This in turn SID 5 Rhin, and caused H2 issues which affected other OER units including JHT, JHT, DHT & ARhin. Also including North Yard which fired up H2 to help out.	Business Process	(1) Did not follow current test method FIVE WHY'S 1. Why did "above" happen? Verification LOSS OF P-553/553A LUBE OIL DISCHARGE PRESSURE TO K-550 K-550 SID DUE TO LOW L/O PRESSURE 2. Why did "1" happen? DOTH P-553 & 553A BOTH OFF WITHIN AN 8 SECOND TIME FRAME ALARM JOURNAL SEQUENCE OF EVENTS 3. Why did "2" happen? APS P-553/553A TEST METHOD NOT FOLLOWED Discussion with operator on alarm Journal SOE. What over current test method in field. ROOT CAUSE(S): What were the Root Causes of your incident? Add more as needed 1. Not following current test method for P-553(A) APS testing Basic Cause Category: 2. Basic Cause Category: 3. Basic Cause Category: CORRECTIVE ACTION(S) (List corrective actions that you are doing to the Root Cause of the incident) Lead time from the start of the incident to the end of the task sequence of the testing steps and follow up method. Due Date: 6/18/12 Completed Owner: Scott Kwehner DGR K-550 SID due to tube oil pumps P-553-553A 6/18/12 @ 08:47 GUS & SAG operator Dave Wolden attempted an APS test on K-550 recycle compressor tube oil pumps P-553-553A as part of his daily duties for 6/18/12 dayshift. A 3rd Monday of the month task as scheduled per the DGR routine duties calendar schedule. No restrictions or abnormal conditions prior to the pump APS testing. K-550 operating at normal conditions and 6 Rhin. rates @ 23 MBPD - 08:46. Starting time on APS pump test 14:00 - 08:43:00 The L/O pumps were in the following operating status prior to the APS testing: P-553 in "AUTO" for APS testing (Standby Mode) P-553A in "RUN" status (Operating Mode) Ops. tested P-553 for the APS test via the "Block & Bleed" method to the APS low pressure switch PCL-0558 on discharge of P-553 & APS for P-553A L/O pump which started P-553 on APS as tested with normal discharge pressure.
33970	Richmond, CA - Refinery	6/18/2012 10:00:00 AM	Closed	Loss	While installing P-335, the discharge flange on the pump broke while being tightened.	Mechanics were installing P-335 in SISQ. While they were tightening up the discharge flange, the flange broke on the pump.	Equipment/Property Damage	(1) Incident Description: Mechanics were installing P-335 in SISQ. While they were tightening up the discharge flange, the flange broke on the pump. FIVE WHY'S 1. Why did "above" happen? Verification on test ion flange was corroded and weakened over time 2. Why did "1" happen? Flange and pump have flat face gasket surfaces, but had a gap and a pilot point around gasket when being tightened. 3. Why did "2" happen? Wrench gasket (spiral wound) used when bolting up pump. 4. Why did "3" happen? Wrench gasket used in past with no issue, replaced in kind 5. Why did "4" happen? Mechanic didn't realize wrong gasket installed. 6. Why did "5" happen? Mechanic didn't pay attention or know it was wrong.
33903	Richmond, CA - Refinery	6/12/2012 9:00:00 AM	Closed	Loss	Green Card A water leak out of pipe clamp needs to be fixed. Location: FCC - Waterfall North of E-742	Green Card A water leak out of pipe clamp needs to be fixed. It looks like it has been leaking for a long time and also needs scaffold and a deck to get out to the leak. Location: FCC - Waterfall North of E-742	ML-Environmental - Operational Leak	(1) Problem Statement (What is the key issue that needs to be addressed)? Driving in the wrong (backwards) side of the road. FIVE WHY'S 1. Why did "above" happen? Verification Why's being done in the wrong direction. 2. Why did "1" happen? Wrong side of the road. 3. Why did "2" happen? Through the driver was someone I know. ROOT CAUSE: What was the Root Cause of your incident? Not paying attention to the task at hand—driving the vehicle. LPS Factor: B in the past, has looked to see who the driver is and nothing had has happened.
33908	Richmond, CA - Refinery	6/19/2012 10:45:00 AM	Closed	Loss	Driving in wrong lane by Scale house	While driving into the refinery from 31 gate I was paying more attention to the trucks at the scale house and drove in the wrong lane.	ML-Transportation - Company	

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33909	Richmond, CA - Refinery	6/19/2012 12:00:00 AM	Closed	Near	Radio 8 went into alarm.	N. Business Process - Business Process	
33909	Richmond, CA - Refinery	6/19/2012 12:00:00 AM	Closed	Near	Radio 8 went into alarm.	N. Operational Process/Procedures - Safety Systems	
33914	Richmond, CA - Refinery	6/19/2012 12:00:00 AM	Closed	Near	Radio 8 went into alarm. All of all Radio system alarms not reported since Sept 2011 to present.	N. Operational Process/Procedures - Safety Systems	(1) FIVE WHY One Page Report Incident Number #33919 Business Unit Blending & Shipping Location Midway & Elroy Road Facility Name Incident date 6/19/12 Type of Process: Type of Equipment: Team members: Ron Shickock, Mike Hall, Small Unit, Tony Conner Incident Description: What: A pump truck was used to pump cement into a concrete pump truck. The pump truck driver approached the overhead pipe rack in the pipe rack. Where (location or where in the process): Midway & Elroy Road When: Tuesday, June 19, 2012 How: When the pump truck driver approached the overhead pipe rack he attempted to inch his way under the pipes and consequently came in contact with a pipe at a lower elevation. Problem Statement (What is the key issue that needs to be addressed?): Proper communication and pre-planning of the preferred route. FIVE WHY'S 1. Why did "above" happen? Verification Management company assumed sub contractor being used knew of the low piping hazards and preferred route of travel. 2. Why did "1" happen? Contractor has been working in the area for over 1 week and in the refinery for 16 years. 3. Why did "2" happen? Escort was not aware of the preferred route. 4. Why did "3" happen? In the past he has used the route on Elroy St. with other cement and pump trucks without incident. 5. Why did "4" happen? Why did "5" happen? Why did "6" happen? Why did "7" happen? ROOT CAUSE: What was the root cause of your incident? The FIVE WHY'S did not uncover the root cause of your incident and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices were NOT in place at the time of the incident. - Stop work authority was not exercised prior to the incident by the driver. - Escort team did not exercise the hazards associated with the low pipe way. - Lack of communication on the height of the pump truck.
33918	Richmond, CA - Refinery	6/19/2012 8:15:00 AM	Closed	Loss	Cement Pump Truck MVA Elroy Road	Transportation	(1) FIVE WHY One Page Report Incident Number #33926 Business Unit Blending & Shipping Location Wheat Facility Name Incident date 6/19/12 Type of Process: Type of Equipment: Team members: Ron Shickock, Mike Hall, Small Unit, Tony Conner Incident Description: What: A pump truck was used to pump cement into a concrete pump truck. The pump truck driver approached the overhead pipe rack in the pipe rack. Where (location or where in the process): Midway & Elroy Road When: Tuesday, June 19, 2012 How: When the pump truck driver approached the overhead pipe rack he attempted to inch his way under the pipes and consequently came in contact with a pipe at a lower elevation. Problem Statement (What is the key issue that needs to be addressed?): Proper communication and pre-planning of the preferred route. FIVE WHY'S 1. Why did "above" happen? Verification Management company assumed sub contractor being used knew of the low piping hazards and preferred route of travel. 2. Why did "1" happen? Contractor has been working in the area for over 1 week and in the refinery for 16 years. 3. Why did "2" happen? Escort was not aware of the preferred route. 4. Why did "3" happen? In the past he has used the route on Elroy St. with other cement and pump trucks without incident. 5. Why did "4" happen? Why did "5" happen? Why did "6" happen? Why did "7" happen? ROOT CAUSE: What was the root cause of your incident? The FIVE WHY'S did not uncover the root cause of your incident and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices were NOT in place at the time of the incident. - Stop work authority was not exercised prior to the incident by the driver. - Escort team did not exercise the hazards associated with the low pipe way. - Lack of communication on the height of the pump truck.
33926	Richmond, CA - Refinery	6/19/2012 8:20:00 AM	Closed	Loss	Small Oil Spill	Environmental	(1) FIVE WHY One Page Report Incident Number #33926 Business Unit Blending & Shipping Location Wheat Facility Name Incident date 6/19/12 Type of Process: Type of Equipment: Team members: Ron Shickock, Mike Hall, Small Unit, Tony Conner Incident Description: What: A pump truck was used to pump cement into a concrete pump truck. The pump truck driver approached the overhead pipe rack in the pipe rack. Where (location or where in the process): Midway & Elroy Road When: Tuesday, June 19, 2012 How: When the pump truck driver approached the overhead pipe rack he attempted to inch his way under the pipes and consequently came in contact with a pipe at a lower elevation. Problem Statement (What is the key issue that needs to be addressed?): Proper communication and pre-planning of the preferred route. FIVE WHY'S 1. Why did "above" happen? Verification Management company assumed sub contractor being used knew of the low piping hazards and preferred route of travel. 2. Why did "1" happen? Contractor has been working in the area for over 1 week and in the refinery for 16 years. 3. Why did "2" happen? Escort was not aware of the preferred route. 4. Why did "3" happen? In the past he has used the route on Elroy St. with other cement and pump trucks without incident. 5. Why did "4" happen? Why did "5" happen? Why did "6" happen? Why did "7" happen? ROOT CAUSE: What was the root cause of your incident? The FIVE WHY'S did not uncover the root cause of your incident and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices were NOT in place at the time of the incident. - Stop work authority was not exercised prior to the incident by the driver. - Escort team did not exercise the hazards associated with the low pipe way. - Lack of communication on the height of the pump truck.
33928	Richmond, CA - Refinery	6/19/2012 8:20:00 AM	Closed	Loss	Technician using a frayed extension cord.	NL-Injury/Illness - Contractor Injury	(1) FIVE WHY One Page Report Incident Number #33928 Business Unit Blending & Shipping Location Wheat Facility Name Incident date 6/19/12 Type of Process: Type of Equipment: Team members: Ron Shickock, Mike Hall, Small Unit, Tony Conner Incident Description: What: A pump truck was used to pump cement into a concrete pump truck. The pump truck driver approached the overhead pipe rack in the pipe rack. Where (location or where in the process): Midway & Elroy Road When: Tuesday, June 19, 2012 How: When the pump truck driver approached the overhead pipe rack he attempted to inch his way under the pipes and consequently came in contact with a pipe at a lower elevation. Problem Statement (What is the key issue that needs to be addressed?): Proper communication and pre-planning of the preferred route. FIVE WHY'S 1. Why did "above" happen? Verification Management company assumed sub contractor being used knew of the low piping hazards and preferred route of travel. 2. Why did "1" happen? Contractor has been working in the area for over 1 week and in the refinery for 16 years. 3. Why did "2" happen? Escort was not aware of the preferred route. 4. Why did "3" happen? In the past he has used the route on Elroy St. with other cement and pump trucks without incident. 5. Why did "4" happen? Why did "5" happen? Why did "6" happen? Why did "7" happen? ROOT CAUSE: What was the root cause of your incident? The FIVE WHY'S did not uncover the root cause of your incident and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices and no standard worked procedures or acceptable practices were NOT in place at the time of the incident. - Stop work authority was not exercised prior to the incident by the driver. - Escort team did not exercise the hazards associated with the low pipe way. - Lack of communication on the height of the pump truck.

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35929	Richmond CA - 6/20/2012 PM	Closed	Near Loss	Card Addressing Alternable Fall of support from, Long Truck #201	not the Alternable Fall Protection plan, as written, permits to the alternate p p se rockets, and the Alternable Fall Protection plan should be considered "over water". Location: Long Wharf Bldg #2, #3 and #9	NL-Lessons Learned	
35945	Richmond CA - 6/19/2012 PM	Closed	Loss	Truck towing T.O. lost traction went off road. Truck #12 moved into moved #12 moved into	A Contractor EE Truck towing a Thermal Oxidizer on SP Hill road near old Truck #12 moved into traction getting up the hill and slid down hill - 15 feet before coming to a stop next to the pipe line off the road.	Transportation	(1) Loose Gravel on Road, Equipment Selection.
35979	Richmond CA - 6/19/2012 PM	Closed	Near Loss	Bridge #201 grating panel fall off of supports after a Truck passed over it.	A grating panel on Bridge #201 fell off of supports immediately after a Truck passed over the bridge. No injuries or damage to truck occurred. Three trucks were unable to leave the area as it was a dead end road with no safe way to exit area until the next day when the Bridge was repaired.	NL- Equipment/Property Damage - Equipment Damage	(1) No Inspection Program, (2) Design less than adequate
35979	Richmond CA - 6/20/2012 AM	Closed	Near Loss	Green Card - The boiler shop/machine shop parking lot gate broken and creating a safety hazard.	In the boiler shop / machine shop parking lot the pass gate is non-functional. One arm was removed but this creates a hazard as both travel pathways go through the same side.	NL-Transportation - Company	
35982	Richmond CA - 6/20/2012 AM	Closed	Near Loss	Green Card - Plastic OTO lubes need replacing	Plastic liner (OTO) continuously falling apart from sun & bad weather. Paper work gets water soaked or lost because protective tube is no good.	NL-Lessons Learned	
40000	Richmond CA - 6/20/2012 AM	Closed	Near Loss	FCC Isolayer tipped when K-1960 shut down on high level. No visible harm occurred.	FCC Isolayer tipped when K-1960 shut down on high level.	NL-Regulatory Compliance - Permit Expendance	(1) K-1960 was not operating properly causing the discharge of 1st stage To be inadequate to lower level in V-1962. FIVE WHY: One Page Report Incident Number 40000 Business Unit Hydro Location RLOP Facility Name K-1960 Incident Date 6/20/2012 Type of Process: Refinery gas type of Equipment: Isolayer Location: K-1960 Isolayer Incident Description: What FCC Isolayer tipped when K- 1960 shut down on high level. Where location occurred in the process: RLOP K-1960 When: 6/20/2012 07:09 How: Operations were attempting to stabilize reaction flow to K- 1960. Once line was unplugged caused liquid to be knocked out on V-1962. Due to the fact K-1960 1st stage discharge pressure was inadequate, there was not enough pressure to push liquid to V-1903. This caused the level to rise until the machine shutdown on high level. FCC Isolayer tipped when K-1960 shut down on high level. Problem Statement (What is the key issue that needs to be addressed?): inadequate 1st stage discharge pressure on K-1960. FIVE WHY'S: Why did "above" the pump? Vertical Operators using F6 to raise the 1st stage discharge pressure. However, this was causing the level system to be overloaded due to the fact isolability of the isolayer. Isolayer 2. Why did the isolayer tip? Isolayer required to be opened to start up of K-1960. Isolayer 3. Why did it tip? Isolayer 3. Why did it tip? Isolayer 3. Why did it tip? Isolayer 3. Why did it tip? Isolayer 3. Why did it tip? required due to 1st stage discharge pressure generating at 19# when normal operation is ~30#. ROOT CAUSE: What was the Root Cause of your incident? K-1960 was not operating properly causing the discharge of 1st stage To be inadequate to lower level in V-1962. LPS Factor:
40013	Richmond CA - 6/20/2012 PM	Closed	Near Loss	Operator Dizzy	An operator was working in room #1121 GC when he felt dizzy after running a Naptha Sour Sample (DARI) for D-28B7.	NL-Injury/Illness - Employee Injury	
40013	Richmond CA - 6/20/2012 AM	Closed	Near Loss	Contract EE reported pain and swelling of left chest.	Contract EE reported pain and swelling of left chest to Chevron Maintenance Supervisor.	NL-Injury/Illness - Contractor Injury	
40021	Richmond CA - 6/20/2012 PM	Closed	Near Loss	Lost communication during equipment isolation	During the blinding process of #5 boiler in preparation for entry, a blind was not installed prior to removing a blowdown valve on the boiler to completely drain it. This blind is located on a common blowdown header that is tied to all other boilers. During the same time, #4 boiler was in the process of being shutdown per procedure and the use of the blowdown valve (normally closed) was necessary to lower drum level. As ops slowly opened B/D valve on 4 blr, steam blowing to 4 blowdowns was immediately heard and ops closed valve blowing to 4 blowdown H2O / steam blew thru an open 1" pipe at grade level coming in contact with isolating.	NL-Injury/Illness - Employee Injury	(1) No established procedure to ensure isolation is performed properly.
Richmond CA - 6/20/2012 2:00:00			Near Loss	Lost communication during	During the blinding process of #5 boiler in preparation for entry, a blind was not installed prior to removing a blowdown valve on the boiler to completely drain it. This blind is located on a common blowdown header that is tied to all other boilers. During the same time, #4 boiler was in the process of being shutdown per procedure and the use of the blowdown valve (normally closed) was necessary to lower drum level. As ops slowly opened B/D valve on 4 blr, steam blowing to 4 blowdowns was immediately heard and ops closed valve blowing to 4 blowdown H2O / steam blew thru an open 1" pipe at grade level coming in contact with isolating.	NL-Injury/Illness - Employee Injury	(1) No established procedure to ensure isolation is performed properly.

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40231	Refinery	PM	Closed	Loss	equipment isolation	coming in contact with nothing.	Contractor Injury	property.
40231	Richmond CA - Refinery	6/20/2012 2:00:00 PM	Closed	Near Loss	Lost communication during equipment isolation	During the blading process of #5 boiler in preparation for entry, a blind was not installed prior to removing a blowdown valve on the boiler to completely drain it. This blind is located on a common blowdown header that is tied to all other boilers. During the same time, #4 boiler was in the process of being shutdown per procedure and the use of the blowdown valve (normally closed) was necessary to lower drum level. As ops slowly opened BID valve on 4 bit, steam blowing to atmosphere was immediately heard and up closed valve immediately. Blowdown H2O/steam blow thru an open 1" pipe at grade level coming in contact with nothing.	NL-Operational Process/Procedures - Safety Systems	(1) No established procedure to ensure isolation is performed properly.
40236	CA - Refinery	6/20/2012 11:30:00 PM	Closed	Near Loss	Inhalation to neck/face Contractor transport truck was leaving refinery with K-320 Rotor near Mill and Channel Street when the load shifted. The rotor fell approximately 8 inches to the bed and damage assessment is under way. Assessment is under way until a further inspection is performed by Kotler. Appears to be minor damage. No personnel injuries occurred.	Contractor Injury		
40124	Richmond CA - Refinery	6/21/2012 5:00:00 PM	Closed	Loss	Contractor transport truck was leaving refinery with K-320 Rotor near Mill and Channel Street when the load shifted. The rotor fell approximately 8 inches to the bed and initial damage assessment is under way until a further inspection is performed by Kotler. Appears to be minor damage. No personnel injuries occurred.	Equipment/Property Damage	(1) Chilling in bad shape, (2) Conducted stand down to get commitment to take the time to do the right task the right way every time	
40231	Richmond CA - Refinery	6/24/2012 12:40:00 PM	Closed	Loss	Flare gas compressor K-1060 shutdown and the shutdown logic would not start.	Regulatory Compliance	(1) The shutdown coordinator assumed the FIS were removed from the shutdown logic as part of the project and did not recognize the risk. (2) The CST did not remember that the K-1060 and K-1070 required ALL shutdown bypasses to be in normal to start a compressor. Factor B-in the past, did not follow procedures or acceptable practices and no incident occurred. (3) Although the HO did not activate the bypass safety since the panel is outside, the HO did not note the safety bypass in the turnover which would have notified the HO on the next shift to fill out a bypass safety form when the one-shift limit for safety bypass was reached.	
40232	Richmond CA - Refinery	6/23/2012 11:30:00 AM	Closed	Near Loss	Operator had discomfort on lip. Seen by Martinez clinic & released. Non Industrial	NL-Injury/Illness - Employee Injury		
40317	Richmond CA - Refinery	6/19/2012 7:00:00 AM	Closed	Near Loss	Green Card. Need a blind bit to prevent blinds from falling. Location: RIOP 14 Plant. E-1413 Fin Fans	NL-Injury/Illness - Employee Injury		
40335	Richmond CA - Refinery	6/21/2012 12:00:00 PM	Closed	Loss	18 plant shutdown due to seal leaks on both P-1531A pumps.	Equipment/Property Damage	(1) Repeat event of a February 2012 event investigated under LI #32285, where solutions are pending. Refer to notes in the Journal and LI #32285.	
40342	Richmond CA - Refinery	6/26/2012 6:00:00 AM	Closed	Loss	Cracked windshield on Carry Deck Crane	Equipment/Property Damage	(1) Incident Description: Mechanics were moving a new motor for P-1453A that was attached to a pallet with the Drot. While moving the motor and pallet onto the Drot, the pallet slowly rotated and came into contact with the windshield of the Drot, cracking the lower corner of the windshield. FIVE WHYS 1. Why did "above" happen? Verification Mechanic moved motor with pallet attached 2. Why did "1" happen? Mechanic had done this task before with no issues 3. Why did "2" happen? Mechanic paid closer attention to load when it was on the hook	
						NL.		(1) Why did the safety of V-735 continue to lift for over 5 hours. Because the pressure on V-735 was above the designed set pressure of the PSV. Why was the pressure of V-735 too high. Because the plant was in the process of pulling feed and not all the moves to lower the pressure on V-735 were made. Why were not all the available move made to lower the pressure of V-735. Because the crew did not have

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40353	Richmond CA - Refinery	6/22/2012 07:00:00 PM	Closed	Near Miss	IX-731, V-735 safety hitching	The safety on V-735 started lifting at about 22:00 on 6/25/12. It will seek for a few seconds and then lift again.	Equipment/Property Damage - Equipment Damage	the knowledge about these moves. Why did the crew not know about these moves. Because they lacked the experience and/or did not receive the proper training.
40356	Richmond CA - Refinery	6/13/2012 1:00:00 PM	Closed	Near Miss	Green Card Refiner pin is sticking out. Location: D&R F-1160 Burner #5	Green Card. While working on a burner, air regulator handle, I noticed the mainer pin is sticking out. Location: D&R F-1160 Burner #5	NI-Injury/Illness - Employee Injury	
40397	Richmond CA - Refinery	6/13/2012 7:30:00 AM	Closed	Near Miss	Green Card. Traffic signs fell over in walkway, Location: North Yard #1 Parking Lot	Green Card. Traffic signs fell over in walkway, could cause falls. Location: North Yard #1 Parking Lot	NI-Lessons Learned	
40401	Richmond CA - Refinery	6/19/2012 10:00:00 AM	Closed	Near Miss	Green Card. No crane last year. Location: S. Refinery Location: S. Refinery	Green Card. At Flare Recovery Unit, doing crane lifting pickup and they don't know what they are doing rigging. Vides open for people to walk right under the rigging.	NI-Injury/Illness - Considered Injury	
40419	Richmond CA - Refinery	6/26/2012 11:00:00 AM	Closed	Near Miss	Arm of chair snagged of stand from sitting position.	While attempting to stand from a sitting position the right arm of the chair completely snagged off causing the employees arm to jerk downwards.	NI-Injury/Illness - Employee Injury	
40425	Richmond CA - Refinery	6/19/2012 12:00:00 AM	Closed	Near Miss	CORISO #652 went overdue (due 5/19) - WO 330783	Initial maintenance (team of three) work started for this CORISO requirement in July of 2011. However it was not completed on time.	NI-Regulatory Compliance - Non Compliance	(1) Problem: CORISO #652 went overdue (due 5/19) - WO 330783. 1. Why? - There was a delay on maintenance planning for additional work scope after the job had civil engineering completed. 1. Not a fluid process for handing off work that either needs engineering or engineering is done and is ready for maintenance - especially when multiple scope changes are involved. (2) Problem: CORISO #652 went overdue (due 5/19) - WO 330783. 2. Why? - Execution was delayed several times due to getting inspector re-evaluated not know there was a 3 day cure time for anchor bolts. A lack of knowledge in maintenance planning and execution with the process involved with permitting work.
40426	Richmond CA - Refinery	6/26/2012 10:00:00 PM	Closed	Loss	Broken connected pipe support and thermo well gassing	EE was setting up Packer to help mechanic install sewage pot. Front outriggers were lowered first. EE then revved up the engine to lower the back outriggers not realizing that the transmission was still in gear causing the packer to jump forward and connecting the pipe support with the right front outrigger. The pipe support is about 12' off the ground and broke free from its anchor base. Front outrigger also made contact with thermo well gauge causing it to break.	Equipment/Property Damage	(1) Driver misjudged how close he was to edge of pavement. (2) Did not follow proper safety practices and take the transmission out gear.
40522	Richmond CA - Refinery	6/26/2012 10:00:00 AM	Closed	Near Miss	Workplace Settings Modified without user's knowledge	Employee had their work pace computer settings modified without their knowledge. Once settings were modified, settings became locked not allowing the user to reset their settings. Causing that individual to disrupt a meeting that they were setting for until the workplace break had finished.	NI-Lessons Learned	(1) Incident Number: 40522 Business Unit: HES/Fitness/Ergo Location: Facility Name: Incident date: 6/26/12 Type of Process: Type of Equipment: Team Members: Alison Beane Robin Jennings Incident Description: Employee had their work pace computer settings modified without their knowledge. Once settings were modified, settings became locked not allowing the user to reset their settings. Causing that individual to disrupt a meeting that they were setting for until the workplace break had finished. FIVE WHY'S: 1. Why did the user not know their settings were modified? Answer: The user did not know they were modified. 2. Why did 'it' happen? Setting changes? 3. Why did 'it' happen? delay not part of the training program? 4. Why did 'it' happen? Corporate approved online training program offered 2 years previous did not contain this portion.
40539	Richmond CA - Refinery	6/27/2012 8:30:00 AM	Closed	Loss	Contractor work van came in contact with yellow poles in the area are too short.	When finishing Cognex control room, Edna work van came in contact with yellow boundary poles on the right side (blind side) of the van. EE noticed that the van came in contact with a stationary object and immediately applied the brake. EE's foot slipped off the brake and onto the gas pedal, accelerating the van forward and knocking over 4 yellow poles that were connected into the ground before he was able to come to a stop. Chevron Fire Department responded quickly and professionally to the accident. There were no visible injuries to the EE and enough damage to the van that it was not safe to drive.	Transportation	(1) Driver misjudged how close he was to edge of pavement. (2) Driver went to hit brake and foot slipped and hit the gas.
40542	Richmond CA - Refinery	6/26/2012 12:00:00 PM	Closed	Near Miss	Green Card. Yellow poles in the area are too short. Location: SISO - 20 Plant	Green Card. While working on 20 Plant, we noticed the yellow poles in the area were too short. Someone can drive over them and have a MVA. Location: SISO 20 Plant	NI-Transportation - Company	
40549	Richmond CA - Refinery	6/27/2012 2:15:00 PM	Closed	Near Miss	2011 CHARP Audi Findings #354	CHARP Audi recommendation #354, Chevron committed to utilize FRANKS data management system to better track and manage the compliance data and ensure that all data is up to date. On 6/20/12, due to technical issues at ZOI indicators, the firm providing the data was unable to access the centralized training and system implementation is not complete. ZOI's best guess is to when they could possibly provide the necessary training was to be the end of June 2012.	NI-Regulatory Compliance - Non Compliance	

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40553	Richmond, CA - Refinery AM	6/27/2012 7:45:00	Closed	Loss	Worker injured (first aid case only) his leg when it was pinched between a compressor and a truck bumper.	Injury/Illness	(1) Worker put his leg in a pinch point.
40570	Richmond, CA - Refinery PM	6/24/2012 12:00:00	Closed	Near Loss	While in the process of applying an FCC import feed tank transfer a discrepancy in the maximum allowable chloride content was discovered.	NL-Business Process - Business Process	(1) Request to make change in StarLims was made by PED. Correction of the chloride limit had not yet been completed. STL and On shift crew were a waste of correct chloride limit and correctly followed RI703
40554	Richmond, CA - Refinery AM	6/26/2012 10:00:00	Closed	Near Loss	Green Card. Need a stop sign installed. Location: Intersection of Chevron Way & Center St.	NL-Transportation - Company	
40556	Richmond, CA - Refinery PM	6/19/2012 2:30:00	Closed	Near Loss	Green Card. Found a leak on a gateway valve. Location: RI-OP - Butene sample station 1 Plant.	NL-Environmental - Operational Leak	
40558	Richmond, CA - Refinery AM	6/20/2012 10:00:00	Closed	Near Loss	Green Card. No green tag on scaffold. Location: 42B Plant, Northside of F-355A	NL-Injury/Illness - Contractor Injury	
40560	Richmond, CA - Refinery AM	6/20/2012 9:00:00	Closed	Near Loss	Green Card. Overhead steam leak. Location: DAR 4 Crude MP-1178	NL-Environmental - Operational Leak	
40561	Richmond, CA - Refinery AM	6/21/2012 7:00:00	Closed	Near Loss	Green Card. Dip in the pavement. Location: Plant 10 Under F-1410	NL-Injury/Illness - Employee Injury	
40563	Richmond, CA - Refinery AM	6/21/2012 7:00:00	Closed	Near Loss	Green Card. Overhead steam leak. Location: DAR 4 Crude Unit, MP-1178	NL-Environmental - Operational Leak	
40565	Richmond, CA - Refinery PM	6/25/2012 9:00:00	Closed	Near Loss	Green Card. Seen a leak. Location: Steam by F-330 NE side of the furnace	NL-Environmental - Operational Leak	
40565	Richmond, CA - Refinery AM	6/25/2012 9:00:00	Closed	Near Loss	Green Card. Leading pipe. Location: #5 Power House.	NL-Injury/Illness - Contractor Injury	
40567	Richmond, CA - Refinery PM	6/25/2012 2:30:00	Closed	Near Loss	Green Card. Repair bar guard on ladder. Location: Near Power House, 3rd deck between Boilers 5 & 6	NL-Injury/Illness - Contractor Injury	
40568	Richmond, CA - Refinery AM	6/25/2012 6:30:00	Closed	Near Loss	Green Card. Contractor with no gloves. Location: RI-OP 18 Plant, 1950A Fin	NL-Injury/Illness - Contractor Injury	
40569	Richmond, CA - Refinery AM	6/26/2012 6:00:00	Closed	Near Loss	Green Card. Observed vehicle driver backing up and almost hitting a post. Location: RI-OP Control Room, Northside parking spaces	NL-Transportation - Contractor	
40571	Richmond, CA - Refinery PM	6/26/2012 1:00:00	Closed	Near Loss	Green Card. Found a box in the road. Location: 19 Plant, 19 Plant, 19 Plant, 19 Plant	NL-Lessons Learned	
40573	Richmond, CA - Refinery AM	6/26/2012 10:45:00	Closed	Near Loss	Green Card. Evac system in DAR West was down. Location: DAR West	NL-Lessons Learned	
	Richmond, CA - Refinery AM	6/26/2012 9:45:00	Closed	Near Loss	Green Card. Worker was backing his truck up without a spotter. Location: Green Card. A worker was backing this truck up without a spotter. Location: #8	NL-Transportation -	

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40874	Refinery	AM	Closed	Loss	#8 Warehouse	Warehouse	Contractor	
					Backhoe and hand probing in the process of tracing a 12 inch pipe. About a foot down an untraced 1.5" fresh water line was inadvertently located by the backhoe bucket and damaged. The fresh water line was 10 feet from the loss.		ML - Equipment/Property Damage - General Liability	
40883	Richmond, CA - Refinery	6/28/2012 12:00:00 PM	Closed	Loss	While in the process of tracing a 12 inch pipe per contract, the line was disturbed in the vicinity of a 1.5 inch water line, causing water to flow from a previously damaged line. A backhoe and hand-pot-holing activity was taking place for the job.		ML - Equipment/Property Damage - General Liability	(1) FIVE WHY'S 1. Why did 'above' happen? The leak occurred to relief as a result of a bypass valve failure. The PRD, AL-1422, was later opened and inspected and found to be in pristine condition with no flaws or defects. 2. Why did '1' happen? The bypass valve failed as a result of corrosion. The valve was also cracked leading the investigation team to believe that the valve likely had been over-tightened at some point causing the valve body seal to crack. 3. Why did '2' happen? The corrosion occurred on the valve as a result of improper material being used in this section of the plant. The vessel (run for V-1441 is AFe pipe class, or Monel trim, all first valves off of vessels shall be like material or greater per Chevron Engineering standards. This bypass valve was one of the many first valves of the vessel and it was only AFe with standard 12CR trim, a downgrade from AFe. 4. Why did '3' happen? It is unclear as to why the original valve trim material was incorrectly specified and installed. Possible that the project team did not see or anticipate that sulfuric acid would contact the area frequently. (ROOT CAUSE) What were the root causes of your incident? (1) The investigation team found that the valve was inspected and installed in 1995. The investigation team was unable to find any records of the valve being inspected or replaced. (2) FIVE WHY'S 1. Why did 'above' happen? The leak occurred to relief as a result of a bypass valve failure. The PRD, AL-1422, was later opened and inspected and found to be in pristine condition with no flaws or defects. 2. Why did '1' happen? The bypass valve failed as a result of corrosion/overload due to sulfuric acid at high velocity. The seal on the valve was also cracked leading the investigation team to believe that the valve likely had been over-tightened at some point causing the valve body seal to crack. 3. Why did '2' happen? The
40888	Richmond, CA - Refinery	4/19/2012 12:00:00 AM	Closed	Loss	V-1441 Relief Bypass Valve Leak By Resulting In Alky SID		Business Process	
40734	Richmond, CA - Refinery	9/29/2012 12:00:00 AM	Closed	Near Loss	Cal AEP finding #364 - Overdue, 6/29/2012, updates RI-395 to include changes to FRMS under normal operating conditions.	A high relief gas flow was seen in the refinery North Yield relief system immediately following an Alky plant start up (V-1440 ESP repair). The source was determined to be coming from the Alky plant. Operations were able to quickly identify the leak source to be coming from V-1441 PRD relief line however were not able to determine if the PRD (AL-1422) and/or the bypass valve were leaking as its scans were inconclusive. Due to the excessive leak rate and the risk of it getting worse, the APU made the decision to take the unit down as soon as a new replacement PRD could be obtained. The PRD was replaced but operations discovered that the isolated vessel was still being pressurized by another gas source. The bypass valve around the PRD was pulled and found to be the true source of leak by.	ML-Regulatory Compliance - Non Compliance	(1) Broken thermometer. 'FIVE WHY' One Page Report Incident Number 40830 Business Unit Hydro Location Hydro Lab Facility Name Hydro Incident date 6/30/2012 Type of Process Mercury Type of Equipment Auto Vis machine Team Members Incident Description: What?Operator noticed broken thermometer in Auto vis machine. Had plant protection test the area for Mercury Vapor, none detected. Where (location of where in the process):Hydro Lab What: 6/30/2012 1830. How?Noticed discolor of oil in bath. Problem Statement (What is the key issue that needs to be addressed?): Via machine bath oil needs clean up FIVE WHY'S 1. Why did 'above' happen? Ventilation Thermometer broke inside bath 2. Why did '1' happen? Operator noticed it was broken, no indication of when or how it happened. 3. Why did '2' happen? The investigation team required samples with oil in the bath. 4. Why did '3' happen? Part of operator duties. ROOT CAUSE: What was the Root Cause of your incident? Broken thermometer.
40830	Richmond, CA - Refinery	6/30/2012 6:30:00 PM	Closed	Near Loss	Mercury thermometer on Auto VIS broken	While pulling samples into the Auto VIS machine, Operator noticed that bath #4 was dark and cloudy. A mercury thermometer broke in the bath.	ML - Equipment/Property Damage - Equipment	
					Green Card: On the morning of June 17th SDA had a seal fire on P-426A. This plant normally runs with 2 solvent pumps on. Once the fire started it was decided not to put the spare pump on until we knew that the EBVs on the 'A' pump held and we would not have to shut down the plant. Running the plant			

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40868	Richmond, CA - Refinery	6/17/2012 12:00:00 AM	Closed	Near Loss	Green Card Black Smoke was observed coming out of Furnace F-135 during Auto Calibration.	with every one pump caused the circulation flow to drop because if a back pressure controller (PC-126) started to open. At about 4:45 it was determined that P-126A EVB's had closed enough that a plant shutdown was not needed. P-126C was put online. In doing this the solvent flow out of these pumps increased and more load was put on F-135 to maintain C-126 inlet temps. F-135 started to fire up to reach the set point required. Normally this would be no big deal, but at 5:00 a.m. the furnace went into its auto calibration for the day. This left the board operator with no indications as to what the furnace was doing as far as Oxygen and CO were concerned. This calibration mode last for about 15 minutes. During this time the furnace continued to fire up and pull itself in a state of danger. When the auto cal. was complete the actual reading in the furnace were .8 O2 and 91 (top of scale) CO. Moves were made before the auto calibration was complete because plant protection noticed black smoke rolling out of the stack of F-135.	NL-Operational Process/procedures - Safe Operating Limit (SOL) Exceeded	(1) Why was black smoke emitting from the stack of F-135. Because there was unburned gas in the furnace. Why was the furnace not firing up and pulling in? Because the O2 level in the furnace had dropped so low, not all the fuel gas was burning. Why was the O2 level low. Because the furnace was firing up and went into calibration. The board operator did not recognize the potential for a furnace bog during the calibration and left the furnace in auto.
40866	Richmond, CA - Refinery	7/1/2012 12:30:00 PM	Management Review	Near Loss	Operator sustained a first aid injury which was verified by Plant Protection during the sealing of a ship in berth 4.	Injury/Illness	(1) Operator should have got help when needed to protect from getting a 1st aid wrist injury	
40868	Richmond, CA - Refinery	6/26/2012 12:00:00 AM	Closed	Near Loss	Channel 4 control channel lost power output	NL-Business Process - Business Process		
40869	Richmond, CA - Refinery	7/1/2012 7:30:00 PM	Closed	Near Loss	Control lost communication	NL-Business Process - Business Process		
40853	Richmond, CA - Refinery	7/2/2012 12:00:00 AM	Closed	Near Loss	Key is missing for LOTO box on K-395D	NL-Operational Process/procedures - Safety Systems		
40911	Richmond, CA - Refinery	7/2/2012 7:30:00 AM	Investigation In Progress	Near Loss	Operator LOTO key missing for K-395D LOTO Box.	NL-Lessons Learned - Safety Systems	(1) No procedures exist or procedures were not followed. Lack of experience towing in rough conditions.	
40987	Richmond, CA - Refinery	7/3/2012 12:00:00 AM	Closed	Near Loss	Ops lost LOTO key for P-1102C	NL-Operational Process/procedures - Safety Systems		
40970	Richmond, CA - Refinery	6/30/2012 1:00:00 PM	Closed	Near Loss	When pulling out of a dirt parking area the safety truck rubbed a telephone guide wire creating a dent on the pickup body.	Equipment/Property Damage	(1) Driver parked too close to a utility pole guide wire and was not paying attention to his surroundings.	
40987	Richmond, CA - Refinery	7/3/2012 5:30:00 PM	Closed	Near Loss	Company vehicle near ended in City of Richmond	Transportation	(1) Information purposes only	
41064	Richmond, CA - Refinery	7/1/2012 7:44:30 PM	Closed	Near Loss	Child fell from playground structure	NL-Lessons Learned		
41073	Richmond, CA - Refinery	7/1/2012 12:00:00 AM	Closed	Near Loss	Communication Unit at Dispatch console broke, 3 min downtime	NL-Business Process - Business Process		
	Richmond, CA -	6/23/2012 12:00:00	Fact	Near	New Cylinder tube system	NL-Equipment/Property Damage - Equipment		

41079	Refinery	AM	Gathering	Loss	K-910220	When the new cylinder tube was installed, there was no connection for the cylinder tube aux pump. There is a connection for the discharge, but it is not in an easy place to get to. There is NO hook up for the suction of the aux pump. There were no hands on training with the new system. Very few operators know what is going on with the new cylinder tube system. There is no easy way to bleed off the pump or system if the pump gasses up. The operator or maintenance would have to break the lines in order to degas the pump. When using the hand pump to degas or fill the system, there is no check valve or block valve to keep from popping the pin on the pump. This would result in the pump not working. Loss of the cylinder tube would result in the loss of that booster compressor.	Damage	
41078	Refinery	AM	Gathering	Loss	New Cylinder tube system K-910220	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage	
41080	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41083	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41085	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41100	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41114	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41114	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41114	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		
41137	Refinery	AM	Gathering	Loss	Loss of Recycle Compressor Emergency Procedure may not be aligned with all Hydroprocessing Best Practices. Emergency procedure states to depressure until TIs are stable and not increasing. However, Hydroprocessing Best Practices emphasize that TI readings are unreliable when there is minimal flow through the reactor. Also, the emergency procedure states that if the recycle compressor is not restarted within 5 minutes, refer to a different emergency procedure (temperature excursion EP), but at the time it takes to pull up that emergency procedure there already could be a temperature excursion.	NL - Operational Process/Procedures - Equipment Damage - Equipment Damage		

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41137	Richmond CA - Refinery	7/8/2012 8:00:00 AM	Closed	Near Blank	While walking next to the 13/16 PLT reactor exchanger, I noticed that the green tag on a 55 gallon haz waste drum was not filled out. There is no indication on the green haz waste tag of what is in the barrel. One of the bung boxes is missing, and the barrel lid is not secured. There looks to be the waxy oil in plastic bags inside.	NI-Regulatory Compliance - Non	process) HNF When 7-8-2012 How-Routine rounds noticed the improper label Problem Statement (What is the key issue that needs to be addressed?) Drum not removed from plant once not needed anymore. FIVE WHY'S 1. Why did "baner" happen? Verification OpAks did not have drum removed once no longer needed. 2. Why did "1" happen? Unable to determine due to fast no accumulation date or identifiable contents. 3. Why did "2" happen? Unable to determine when drum was used and for what purpose. 4. Why did "3" happen? Unable to determine therefore operations had drum removed by hazardous waste. ROOT CAUSE: What was the Root Cause of your incident? Drum should have been labeled properly and removed once no longer needed.
41171	Richmond CA - Refinery	7/8/2012 9:45:00 PM	Investigation in Progress	Loss challenging due to two false pressure indications	IX-7141, one of two PRDs on V-712 was challenging. This was causing increased flow to flare Gas Recovery.	Operational Process/Procedures	
41204	Richmond CA - Refinery	7/8/2012 12:00:08 AM	Closed	Near Loss	Green Card, Remote Chaining to open up parking lot. Location: West of Gate 81	NI-Transportation - Contractor	
41205	Richmond CA - Refinery	7/8/2012 8:00:00 AM	Closed	Near Loss	Green Card, Replace lights in women's showers. Location: RoddGun Outdoor Women's Locker Rooms	NI-Lessons Learned	
41205	Richmond CA - Refinery	7/8/2012 8:00:00 AM	Closed	Near Loss	Green Card, The lights over the women's showers in the outside locker room have been out for a few months. It is a safety issue because you can't see in the shower very well. It's slippery, and there are steps to get into a row of the showers. Location: RoddGun Outdoor Women's Locker Rooms	NI-Injury/Illness - Employee Injury	(1) What happened. Coupling end seal area started to throw out sparks during run-in. (1) Why did this happen? Seal gland was not properly installed during run-in. (2) Why did the gland not get properly installed? Glanding team did not have proper clearance and improperly aligned. (3) Why was it not installed the way? In order to expedite the repair and minimize repair spend due to a future upgrade plan. Also a discussion was held between shop and field mechanics and we all agreed that this method was OK to do. So the Root Cause was the decision to install the gland with bad registers. As mentioned we believed this repair type would be sufficient to get to the equipment to a date in the future where the upgrade would take place.
41212	Richmond CA - Refinery	7/8/2012 10:00:00 AM	Closed	Loss	P-1665 / currently root cause is undetermined as to whether this failure was field or shop related so this LI has been entered to track and subsequently share the determined cause of installation and subsequent start up failure.	Equipment/Property Damage	
41213	Richmond CA - Refinery	7/8/2012 11:30:00 AM	Investigation in Progress	Loss	K-920 Trazon lubricator lost flow	NI - Equipment/Property Damage - Equipment Damage	
41205	Richmond CA - Refinery	7/10/2012 7:10:00 AM	Closed	Near Loss	Slings inspection in the garage was not up-to-date	NI-Lessons Learned	

3 STOP WORK pauses during a Nalco Off-Load. Nalco delivery truck came in to off-Load Nalco Product EC2472A (4m emulsifier) for the Crude Unit into Nalco #18165 Tank. Upon arrival @ 11:400, Nalco driver was telling up to offload and had issues with the air compressor to turn the Nalco delivery truck pump to progress the off-load. After shift exchange, nightshift O&R East-Side crew came out & noticed a Non-Approved Ground Camp being used. FIRST Stop Work Authority was used by Ops. to find an Approved Ground Camp

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41382	CA - Refinery	2:00:00 PM	Closed	Near Loss	Removal process of the Distillation Box	be pumped out. The mixing and agitation of the sludge can liberate small amounts of H2S.	Process/Procedures - Safety Systems	
41443	Richmond CA - Refinery	7/12/2012 12:05:00 PM	Closed	Near Loss	RLOP GRU liquid feed pump seal failed. Triggered H2S alarm.		Equipment/Property Damage - Equipment Damage	(1) Seal ran dry, see 5 why https://online001-hou.spc.dti.watson.com/external/accident/accident/PSOURRDocLib-P-1503%205%20Why.docx
41444	Richmond CA - Refinery	7/12/2012 2:00:00 PM	Fact Gathering	Near Loss	Possible Mercury exposure	Maintenance was installing P-104 in pump at #1 separator. Once the pump was placed in position, an entry permit was needed because to align the structure required breaking the frame. Testing conducted by Plant Protection indicated elevated levels of hydrogen plus Mercury.	NL-Injury/Illness - Employee Injury	
41457	Richmond CA - Refinery	7/12/2012 6:06:00 PM	Fact Gathering	Near Loss	USE Operator taken to Ambulance by Ambulance	Operator complained of chest pain/heart palpitations and requested Plant Protection to evaluate via plant radio.	NL - Sensitive/Commercial (Must be associated with another subtyp)	
41473	Richmond CA - Refinery	7/11/2012 10:00:00 AM	Closed	Near Loss	Green Card Fuel trucks are not grounding their truck when dispensing fuel. Location: REFINERY-WIDE	Green Card Fuel trucks are not grounding their truck when dispensing fuel to equipment or tanks. Location: REFINERY-WIDE	NL - Lessons Learned	
41526	Richmond CA - Refinery	7/11/2012 12:50:00 AM	Closed	Near Loss	#7 Boiler tripped off line	At approximately 00:50, 7/11/12 Boiler # 7 tripped offline. Doing a final assessment on the cause of the shutdown, we determined that the trip handle on the Woodward governor tripped causing the speed probes to shutdown #7 boiler.	NL - Business Process - Business Process	(1) Root cause is unknown. Ops will monitor closely for unusual behaviors. OST trip will be tested this month or August, 2012 which will confirm OST did or did not malfunction
41527	Richmond CA - Refinery	8/4/2012 12:00:00 AM	Management Review	Near Loss	Operator exceeded Cal/OSHA Permissible Exposure Limit for Benzene while sampling a gasoline tank.	Operator exceeded Cal/OSHA Permissible Exposure Limit for Benzene while sampling a gasoline tank.	NL-Operational Process/Procedures - Safety Systems	(1) Sample station (box) door is solid steel and does not have a window, does not allow operator to see level in sample bottle.
41527	Richmond CA - Refinery	8/4/2012 12:00:00 AM	Management Review	Near Loss	Operator exceeded Cal/OSHA Permissible Exposure Limit for Benzene while sampling a gasoline tank.	Operator exceeded Cal/OSHA Permissible Exposure Limit for Benzene while sampling a gasoline tank.	NL-Injury/Illness - Employee Injury	(1) Sample station (box) door is solid steel and does not have a window, does not allow operator to see level in sample bottle.
41530	Richmond CA - Refinery	7/14/2012 5:00:00 PM	Closed	Near Loss	Entry of Intellibac sign on file	Operator breaching in on job had password issues logging onto Intellibac and signing off on rounds at the end of the day. Other operator working the same job was sampling a tank at that time and was unable to sign off on the Intellibac rounds before 11:00. NLI: Operator failed to sign off Intellibac items on time, why? 17 Operator could not log on. Why? 27 Operator had forgotten password.	NL - Business Process - Business Process	
41583	Richmond CA - Refinery	7/11/2012 7:00:00 PM	Closed	Near Loss	Green Card, Leaking sewer/water line that has caused a sink hole. Location: RCD & Gun	Green Card, There is a leaking sewer/water line that has caused a sink hole, 20" diameter x 4-5ft deep. There are kids at these softball games (2-4 yrs old) and one of them almost went down the hole. Currently there is only (2) traffic cones and a roadside safety barrier. Current setup is unacceptable. Sewer/water line needs to be fixed and sink hole filled or trench pit placed over the sink hole. Location: RCD & Gun, 30th behind softball field at Backstop	NL - Lessons Learned	
41582	Richmond CA - Refinery	5/8/2012 12:00:00 AM	Fact Gathering	Near Loss	No fit test data for 7 employees on 5-8 and 5-9, 2012.	Records indicate no data for fit test of 7 employees. Data was checked on all machines and not available. There is a training sheet showing participation by employees and fit test cards were issued	NL-Regulatory Compliance - Non Compliance	
41611	Richmond CA - Refinery	7/15/2012 11:00:00 AM	Closed	Near Loss	Employee fell eye irritation during the course of work. Employee tried flushing eye but still felt irritation so he reported to his Supervisor	Employee fell eye irritation during the course of work. Employee tried flushing eye but still felt irritation so he reported to his Supervisor	NL-Injury/Illness - Employee Injury	
41642	Richmond CA - Refinery	7/15/2012 4:30:00 AM	Closed	Near Loss	Completed round not approved	HO did not approve completed SGRU round	NL - Business Process - Business Process	
41684	Richmond CA - Refinery	6/25/2012 12:00:00 AM	Fact Gathering	Loss	TP-284 Coupling Failure	FOR COMPLETE TOP REPORT SEE LINK ATTACHED. Initial Report: TP-284 coupling failure appears to have been caused by locked gear coupling due to loss of coupling grease.	Equipment/Property Damage	
41695	Richmond CA - Refinery	7/17/2012 10:30:00 AM	Investigation In Progress	Loss	Diesel Leak From BAPL during routine area audit a LOTO box was discovered	The Bay Area Pipeline booster pump P-18 developed a Diesel leak on the Suction Line PRD leg post start up around 10:00. All appearances are that a coupling may have backed off due to vibration. The leak was to containment and spotted early into the vent by the Refine Head Operator.	Environmental Enforcement	(1) 3-Person selected to perform this task did not have the right skill or knowledge. Original design spec did not meet modern standards. Past work process failures allowed coupling to be installed up stream on the pressure side of the PRD.

https://impactterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_f8a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

41913	Richmond, CA - Refinery	7/19/2012	230:00	Fact Gathering	Loss	Employee fell something in his eye	Employee was sitting in his truck at break wearing his safety glasses. He was feeling tired so he removed his glasses to rub his eyes at which point he felt something in his eye. He attempted to wash it out, but was unsuccessful.	NI-Injury/Illness - Contractor Injury	Why did "4" happen? 6. Why did "5" happen? 7. Why did "8" happen? 8. Why did "7" happen? ROOT CAUSE: What was the Root Cause of your incident? In the past, did not follow procedures or acceptable practices and no incident occurred. Contributing Factors: LPS Factor.
41913	Richmond, CA - Refinery	7/19/2012	230:00	Fact Gathering	Loss	Employee fell something in his eye	Employee was sitting in his truck at break wearing his safety glasses. He was feeling tired so he removed his glasses to rub his eyes at which point he felt something in his eye. He attempted to wash it out, but was unsuccessful.	NI-Injury/Illness - Contractor Injury	(1) FIVE WHY: One Page Report Incident Number: Business Unit: Location: Facility Name: Incident date: Type of Process: Type of Equipment: Team Members: Incident Description: What: Employee was sitting in his truck at break wearing his safety glasses. He was feeling tired so he removed his safety glasses to rub his eyes at which point he felt something in his eye. He attempted to wash it out, but was unsuccessful. Where (location or where in the process): In work truck located at RUCD. When: July 17, 2012 How: Rubbed his eyes with his hand. Why: Employee (that's the key issue that needed to be addressed) had to be removed from the process because of his eye. FIVE WHYS: 1. Why did "above" happen? Verification Employee removed safety glasses and rubbed his eyes with his hands. 2. Why did "1" happen? Employee was feeling tired and it was towards the end of the day. 3. Why did "2" happen? This is a common practice when you are feeling tired. 4. Why did "3" happen? Why did "4" happen? 5. Why did "5" happen? 7. Why did "8" happen? 8. Why did "7" happen? ROOT CAUSE: What was the Root Cause of your incident? In the past, did not follow procedures or acceptable practices and no incident occurred. Contributing Factors: LPS Factor.
42002	Richmond, CA - Refinery	7/20/2012	4:03:00	Fact Gathering	Loss	600K product routed off test	At approximately 1600 on 7/20/2012 the HNF Alarms column bottoms flow dropped off and Tripped F-1650 C-1650 bottoms (currently 600K) was routed off test as a precaution. Operations worked to get the flow reestablished and the plant is currently stabilizing. The P-1635 pumps appeared to gas up.	Operational Process/Procedures	
42010	Richmond, CA - Refinery	7/21/2012	7:10:00	Management Review	Major Loss	Gasoline leaking from tubing to the ground (asphalt)	Gasoline leaking from tubing to the ground (asphalt) from the test line sample filter at the compressor bling. Quantity < 10g gal.	NI-Environmental - Operational Leak	(1) Connection (compression fitting) wore out over time and it exposed the elements (expansion) contraction due to temperature variation etc.
42018	Richmond, CA - Refinery	7/21/2012	11:56:00	Management Review	Loss	Lost Hox steam flow to the combustor car Cogen 2000 train causing a Hox accident.	At approx 23:26 hrs, on 7/21/12, the Cogen Board Operator received an alarm for a high level in the 2000 Train medium pressure drum and then a NO alarm. Hox steam flow to the combustor was lost for an unknown reason. A3 control valves on the DCS where in the normal position. The Cogen Turbine Operator was dispatched to the field and found that the Hox steam control valve (F222LS20) had closed for unknown reasons while indications inside still show the valve as open.	Environmental	(1) At this time troubleshooting is complete from the controls, ops and the I&E and. We have come to a conclusion the problem may exist mutually interlaid to the valve actuator and/or valve itself. This list of action items are placed on the upcoming "S" inspection worksheet for March, 2013 to be thoroughly inspected.
42077	Richmond, CA - Refinery	7/19/2012	4:30:00	Closed	Minor Loss	Green Card. Excessive speed in parking lot area. Location: North Contractor Parking Lot	Green Card. At the very end of the North parking lot, a small group park their cars and trucks. I was pulling out of my parking spot. Looked both ways, it was clear, but no sooner had I pulled out and a white Dodge 4x4 pickup was right on my bumper. There is a lot of excessive speed coming from that end of the parking lot. It's an accident waiting to happen. Location: North Contractor Parking Lot	NI-Transportation - Contractor	
42092	Richmond, CA - Refinery	7/17/2012	8:00:00	Fact Gathering	Loss	Theed into incorrect fire (condensate instead of 150g sim). Also, project was completed prior to MOC Stage 1 completion	A steam driven reciprocating pump (aka, a Big Bertha) was being used to verify that the circulating nozzles on T-3182 were clear/unplugged for upcoming S/D. EMO specified that 10-in for steam supply of pump was to be on 2" line which turned out to be the condensate header. Attempt to operate reciprocating pump was unsuccessful. Engineer was called to help troubleshoot. Upon arrival at site it was recognized that wrong line was tied into. Secondly, the work to clear these nozzles, which included operation of steam driven pump, was completed prior to completion of Stage 1 of MOC#25122. There was no P-SKR done prior to energizing pump.	Business Process	
42092	Richmond, CA - Refinery	7/17/2012	8:00:00	Fact Gathering	Loss	Theed into incorrect fire (condensate instead of 150g sim). Also, project was completed prior to MOC Stage 1 completion	A steam driven reciprocating pump (aka, a Big Bertha) was being used to verify that the circulating nozzles on T-3182 were clear/unplugged for upcoming S/D. EMO specified that 10-in for steam supply of pump was to be on 2" line which turned out to be the condensate header. Attempt to operate reciprocating pump was unsuccessful. Engineer was called to help troubleshoot. Upon arrival at site it was recognized that wrong line was tied into. Secondly, the work to clear these nozzles, which included operation of steam driven pump, was completed prior to completion of Stage 1 of MOC#25122. There was no P-SKR done prior to energizing pump.	Process Safety Management (PSM)	
42097	Richmond, CA - Refinery	7/17/2012	9:00:00	Closed	Minor Loss	Green Card. Missing falling above validation tank #2. Location: B&S 17 Pump Station	Green Card. Wooden railing above validation tank #2 is missing causing a safety hazard. Location: B&S #17 Pump Station	NI-Injury/Illness - Employee Injury	
42097	Richmond, CA - Refinery	7/17/2012	9:00:00	Closed	Minor Loss	Green Card. Missing falling above validation tank #2. Location: B&S 17 Pump Station	Green Card. Wooden railing above validation tank #2 is missing causing a safety hazard. Location: B&S #17 Pump Station	NI-Injury/Illness - Employee Injury	Why did "4" happen? 6. Why did "5" happen? 7. Why did "8" happen? 8. Why did "7" happen? ROOT CAUSE: What was the Root Cause of your incident? In the past, did not follow procedures or acceptable practices and no incident occurred. Contributing Factors: LPS Factor.

42099	Richmond, CA - Refinery	7/19/2012 12:00:00 AM	Investigation In Progress	Loss	T-1504 Carbon Filters, V-2 ruptured disc due to overpressure	potentially sour water is passed through a series of carbon filters, then down to the tank box which transfers the water on to EOD. The system is protected by two 75 lb rupture discs. One disc was ruptured on V-2, which caused issues with drawing down the water level in T-1504 (Recovered Oil Tank). V-1 was unable to be used for drawing down the water due to the need for carbon filter replacement. Near Loss: Unable to draw down the level in T-1504 Recovered Oil Tank. Why #1: Unable to safely draw down the sour water from the tank. Why #2: V-1 carbon filter was spent, and V-2 had a ruptured disc. Why #3: 2 possible scenarios for a ruptured disc- (1) Valves closed on the filters when drawing down T-1504. (2) Hammering of the lines b/c a valve was opened too quickly. Why #4: Further investigation needed.	Operational Process/Procedures	(1) 1. No notification to the FCC after isolating the condensate line to T-2520 from the FCC. 2.No Procedure or Parallels lag in valve area. 3. No check valve in the FCC to protect the FCC BPW system.
42179	Richmond, CA - Refinery	7/18/2012 12:00:00 AM	Closed	Loss	High Silica level in both LP & HP boiler feed water	Silica had been high in both LP and HP boiler feed water and in the boilers for a couple of days. The concern - High silica can carry-over into the steam and deposit out onto turbine blades, and cause severe damage (i.e. wet gas compressor)	Prestart/Procedures - Safe Operating Limit (SOL) Exceeded	
42161	Richmond, CA - Refinery	7/24/2012 6:00:00 AM	Closed	Near Loss	EE was not feeling well and was seen at the clinic	EE was not feeling well and was seen at the clinic. He was then sent the see his own PCP. Non-work related	NL-Injury/Illness - Employee Injury	
42183	Richmond, CA - Refinery	7/23/2012 5:00:00 PM	Closed	Near Loss	Vehicle seen speeding on Petrolia Street near the D&R Control House.	While driving on Standard Road passing the D&R ABU Offices I observed a van travelling north on Petrolia Street at a high rate of speed. As I approached the intersection of Petrolia Street I could see the electronic speedometer sign located north of the two bridges connecting the roadway with D&R. The electronic speedometer sign was flashing 34 mph. The posted speed limit on Petrolia Street is 20mph. I watched the van make a left turn and go across the northernmost bridge into the D&R parking area. I observed that the back of the van was orange and green. As I continued to travel north on Petrolia Street, I passed the D&R control house and saw that the van was parked, facing east, next to the curb on the north side of the control house. All of the van doors, front and rear, were open and several passengers were waiting from the van. I saw the van was orange and green. I saw the van was parked, facing east, because the driver's door was open. I could see that the driver had exited the vehicle. Since I was driving with a more experienced employee I stopped the car at the D&R turn off and we discussed if any immediate corrective action could be taken. Since the van was already stopped and the driver had left we decided that submitting a green card would be the most appropriate solution. We observed that the van had a one of the heat shrink safety decals on it and "D&R WEST" printed on the side. The back of the van was orange with a green triangle and the word "POWER" printed on it.	NL-Transportation - Company	
42200	Richmond, CA - Refinery	7/24/2012 12:00:00 AM	Management Review	Near Loss	CS-36 failed to pop within 120% of cut set pressure.	CS-36 was removed from service for recalcification. The set pressure was 100 psi. The valve popped @ 129.18 above the 120% limit per the RI.	NL-Equipment/Property Damage - Equipment	(1) Believe that valve has fired or previously leaked by allowing moisture to collect in outlet cavity causing CS components to corrode. This caused the disc/stem to seize in the guide.
42203	Richmond, CA - Refinery	6/29/2012 12:15:00 PM	Closed	Near Loss	Green Card, Panels broke off and water spilling out of Cooling Tower	Green Card, Westside of the Cooling Tower there's panels broke off and water is spilling out. Location: FGR - Westside of the Cooling Tower	NL-Environmental - Operational Leak	
42204	Richmond, CA - Refinery	6/24/2012 6:00:00 AM	Closed	Near Loss	Green Card, A faced stop sign. Location: Redwood's office	Green Card, Driving from Redwood's office, there is a stop sign that is so faded it can't be seen. Location: Redwood's office	NL-Transportation - Company	
42207	Richmond, CA - Refinery	6/27/2012 2:35:00 PM	Closed	Near Loss	Green Card, EE walking with shoes loose untied and hands full. Location: SISO - F135	Green Card, I noticed an employee walking with his hands full while one of his shoes was untied. Location: S. Isomax - F135	NL-Injury/Illness - Contractor Injury	
42208	Richmond, CA - Refinery	6/29/2012 9:30:00 AM	Closed	Near Loss	Green Card, A valve leaking from valve stem. Location: D&R, next to safety shower	Green Card, There's 2 @ 900 valves leaking from the valve stem next to the safety shower AD8SH150. There's also a T valve that's leaking in the same area. Location: D&R GHT Plant	NL-Environmental - Operational Leak	
42211	Richmond, CA - Refinery	6/28/2012 10:30:00 AM	Closed	Near Loss	Green Card, A loose manifold needs adjusting. Location: FGR	Green Card, More often than not when we use supplied fresh air to do our work safely, the manifold is always loose and needs adjusting a few turns or more. We are not confident to adjust this equipment. Location: FGR	NL-Equipment/Property Damage - Equipment Damage	
42213	Richmond, CA - Refinery	7/5/2012 3:30:00 PM	Closed	Near Loss	Green Card, Ground is covered in oil. Location: SISO - K620	Green Card, While working near K620, I notice that the ground is covered in oil. Everywhere you look, there's oil. Location: SISO - K620	NL-Injury/Illness - Contractor Injury	
42218	Richmond, CA - Refinery	7/11/2012 2:45:00 PM	Closed	Near Loss	Green Card, No fange lags when opening manways. Location: Refinery	Green Card, When opening manways there are never any fange lags.	NL-Equipment/Property Damage - General Liability	

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42201	Richmond CA - Refinery	8/15/2010 12:00:00 AM	Fed Gathering	Near Loss	ACD Process not completed for AL-1468 to AL-1472 conversion.	7054 submitted to change AL-1468 to AL-1472 was not completed. Making pipe blind to P14 facilities.	NL-Operational Process/Procedures - Pressure Relief Devices (PRD)	
42202	Richmond CA - Refinery	7/12/2012 8:30:00 AM	Closed	Loss	Green Card, Large amount of algae on ground.	Green Card, While I was working on the VOC evap system, I noticed a large amount of algae on the ground. So I got a workdown hose and sprayed it all down so no one would slip and hurt themselves. Location: FCC - P107	NL-Injury/Illness - Contractor Injury	
42301	Richmond CA - Refinery	7/12/2012 11:00:00 AM	Closed	Near Loss	Green Card, People tipping over parking lot bumpers. Location: Gate 91 parking lot	Green Card, I noticed a few people tipping over the parking lot bumpers at Gate 91 in front of the porch. The reason people don't see the bumpers is because the paint has worn out and camouflage with the ground. Also the handalls need to be fixed and the boards on the porch are loose. Location: Gate 91	NL-Injury/Illness - Contractor Injury	
42302	Richmond CA - Refinery	7/26/2012 12:00:00 AM	Closed	Near Loss	K-7346 popped at less than 50% of authorized seal pressure.	During initial test K-7346 relieved at 297.91 psi. This is below 90% of the authorized seal pressure of 285 psi.	NL-Operational Process/Procedures - Pressure Relief Devices (PRD)	(1) Product found in seal / reason unknown.
42304	Richmond CA - Refinery	7/13/2012 10:30:00 AM	Closed	Loss	Green Card, A1 - Beam is missing 3 bolts. Location: Boiler #3 on entry north #5 on a pipe station.	Green Card, By Boiler 3 on entry north #5 on a pipe station just across from the dock is an unconnected I-beam missing 3 bolts (not concerned). The p1way is empty (no weight on it), but in an earthquake it could be an extreme hazard. Check it out. It might not be nothing, but it should be addressed by Chevron safety. (unconnected weakens the entire structure horizontally and vertically). It needs a small tack weld only. Location: Boiler House	NL- Equipment/Property Damage - Equipment Damage	
42313	Richmond CA - Refinery	7/17/2012 8:30:00 AM	Fed Gathering	Near Loss	Green Card, Need Safety attendant cards for training House	Green Card, Need Safety Attendant Cards for training cert. Need cards to be given once test has been graded, before getting an audit by safety.	NL-Business Process - Business Interruption	
42315	Richmond CA - Refinery	7/20/2012 11:20:00 AM	Closed	Near Loss	Green Card, #5 Boiler, 2nd deck on the outside rail is cracked. Location: #1 Power House	Green Card, #5 Boiler, second deck on the outside rail is cracked and in need of repair. Anyone hearing anything? It can seriously get hurt. Location: #1 Power House	NL-Injury/Illness - Contractor Injury	
42316	Richmond CA - Refinery	7/20/2012 8:00:00 AM	Closed	Near Loss	Green Card, #3 Boiler Location: #1 Power Plant.	Green Card, #3 Boiler: Observed a scaffold bar is sticking out. Location: #1 Power Plant.	NL-Injury/Illness - Contractor Injury	
42317	Richmond CA - Refinery	7/20/2012 9:00:00 AM	Closed	Near Loss	Green Card, Vehicle going over speed limit. Location: Power House	Green Card, Vehicle was going over the speed limit and didn't come to a complete stop at stop sign. Location: Power House	NL-Transportation - Company	
42318	Richmond CA - Refinery	7/20/2012 8:30:00 AM	Closed	Near Loss	Green Card, Noticed bracket holes on skin and on angles. Location: #3 Boiler House	Green Card, Contractor working inside hole lacking on brackets. I noticed while looking there was various holes on skin and on the angles. Location: #3 Boiler House	NL- Equipment/Property Damage - Equipment Damage	
42322	Richmond CA - Refinery	7/25/2012 9:15:00 AM	Closed	Near Loss	Damage to underground poly fill line	All the 267 channel in Homeland Security Enhancement center a base #220 a ground rod was being driven next to the cement base. About 4 feet down the rod hit a 2" poly fill line that was not picked up by USA.	NL-Lessons Learned	
42343	Richmond CA - Refinery	7/28/2012 12:00:00 AM	Closed	Near Loss	RLOP Hilar Tollerier upside down blowing down K-1400 case drain.	While blowing down K-1400 case drain, the handrail fell out of the steam after the valve was opened. During the blowdown, the handrail was blown down and the handrail was bent and caught up to relief causing the tollerier to trip. There was no visible flaring (Confirmed by RSL via flare cam).	NL-Environmental - Release	
42388	Richmond CA - Refinery	7/24/2012 10:00:00 PM	Investigation In Progress	Near Loss	Tollit tissue dispenser broken causing it to fall very close to the face of my person using the face of the dispenser. High potential for an injury.	A certified employee was using the women's handicapped restroom stall in the locker room. Upon entering the toilet, tissue dispenser fell, the face plate of the dispenser came down toward into her lap very close to her face.	NL- Equipment/Property Damage - General Liability	(1) Repair broken toilet tissue dispenser
42396	Richmond CA - Refinery	6/18/2012 10:30:00 AM	Closed	Near Loss	Green Card, No barricade tags up. Location: Hydro- FGR	Green Card, While working at the FGR unit, I saw a crane make a pick and there was no barricade up. Location: Hydro - FGR	NL-Injury/Illness - Contractor Injury	
42400	Richmond CA - Refinery	7/15/2012 10:00:00 AM	Closed	Near Loss	Green Card, Welder didn't see elec cord while welding. Location: #1 Power Plant #3 Boiler Ash Hopper	Green Card, (Blind Spot) Welder didn't see electrical cord opposite side of steel plate while cutting with torch. Location: #1 Power Plant #3 Boiler Ash Hopper	NL-Lessons Learned	
42400	Richmond CA - Refinery	7/15/2012 10:00:00 AM	Closed	Near Loss	Green Card, Welder didn't see elec cord while welding. Location: #1 Power Plant #3 Boiler Ash Hopper	Green Card, (Blind Spot) Welder didn't see electrical cord opposite side of steel plate while cutting with torch. Location: #1 Power Plant #3 Boiler Ash Hopper	NL-Fire/Explosion	

42403	Richmond CA - Refinery	7/17/2012 PM	Closed	Near Loss	Green Card, Contractor climbing ladder with tools in hand. Location: #3 Power House	NL-Injury/Illness - Contractor Injury	
42404	Richmond CA - Refinery	7/18/2012 PM	Closed	Near Loss	Green Card, Trees blocking visibility. Location: BSS - Quarry Rd adjacent to T-3197	NL-Transportation - Contractor	
42405	Richmond CA - Refinery	7/18/2012 AM	Closed	Near Loss	Green Card, Contractor in Power House wearing dark glasses.	NL-Injury/Illness - Contractor Injury	
42406	Richmond CA - Refinery	7/18/2012 AM	Closed	Near Loss	Green Card, Contractor not using barricade tape. Location: #5 Powerhouse	NL-Lesson Learned	
42409	Richmond CA - Refinery	7/18/2012 AM	Closed	Near Loss	Green Card, Contractor lowering down header from steam drum without any barricade tapes to let others know what's going on. Location: #5 Powerhouse	NL-Lesson Learned	
42409	Richmond CA - Refinery	7/18/2012 AM	Closed	Near Loss	Green Card, Contractor lowering down header from steam drum without any barricade tapes to let others know what's going on. Location: #5 Powerhouse	NL-Injury/Illness - Contractor Injury	
42411	Richmond CA - Refinery	7/18/2012 AM	Closed	Near Loss	Green Card, Contractor rudely throwing materials off of rolling cart. Location: #5 Powerhouse	NL-Injury/Illness - Contractor Injury	
42413	Richmond CA - Refinery	7/18/2012 PM	Closed	Near Loss	Green Card, Welder grinding without a face shield. Location: #3 Power Plant #3 Boiler	NL-Injury/Illness - Contractor Injury	
42413	Richmond CA - Refinery	7/18/2012 PM	Closed	Near Loss	Green Card, Welder grinding without a face shield. Location: #3 Power Plant #3 Boiler	NL-Lesson Learned	
42413	Richmond CA - Refinery	7/18/2012 PM	Closed	Near Loss	Green Card, On Boiler #3, I noticed a sheet of skin metal laying on a table with 4 sharp edges and if you walk past, you could get hurt or cut. Location: Power House, Boiler #3	NL-Injury/Illness - Contractor Injury	
42415	Richmond CA - Refinery	7/19/2012 PM	Closed	Near Loss	Green Card, On Boiler #3, I noticed a sheet of skin metal laying on a table with 4 sharp edges and if you walk past, you could get hurt or cut. Location: Power House, Boiler #3	NL-Lesson Learned	
42415	Richmond CA - Refinery	7/20/2012 PM	Closed	Near Loss	Green Card, Welders welding inside a confined space without respirators. Location: Power Plant	NL-Lesson Learned	
42416	Richmond CA - Refinery	7/20/2012 PM	Closed	Near Loss	Green Card, Welders welding inside a confined space without respirators. Location: Power Plant	NL-Injury/Illness - Contractor Injury	
42453	Richmond CA - Refinery	7/25/2012 AM	Closed	Near Loss	Green Card, Dirty windows on vehicles creates poor visibility. Location: Refinery	NL-Transportation - Company	
42516	Richmond CA - Refinery	7/26/2012 AM	Closed	Near Loss	T-3222 was transferred to T-3197 from the water draw via 162 line. Prior to the transfer, the water draw valve on T-3197 was checked, and it did not move, so it was assumed that the valve was closed. T-3222 level transferred reaching zero at approximately 20:00 on 07/26/12. I (water draw details PUP) was not standing by the transfer and the function was still being trained. Drayshin discovered the issue when it was seen that T-3222 level was reaching zero and T-3197 tank was still rising. It was discovered that the water draw valve on T-3197 had been left open. A secondary block valve was closed to prevent further transfer out of T-3197. RSL & planners notified.	Environmental	
42518	Richmond CA - Refinery	7/26/2012 AM	Closed	Near Loss	T-3222 was transferred to T-3197 from the water draw via 162 line. Prior to the transfer, the water draw valve on T-3197 was checked, and it did not move, so it was assumed that the valve was closed. T-3222 level transferred reaching zero at approximately 20:00 on 07/26/12. I (water draw details PUP) was not standing by the transfer and the function was still being trained. Drayshin discovered the issue when it was seen that T-3222 level was reaching zero and T-3197 tank was still rising. It was discovered that the water draw valve on T-3197 had been left open. A secondary block valve was closed to prevent further transfer out of T-3197. RSL & planners notified.	Operational Process/Procedures	
42519	Richmond CA - Refinery	7/26/2012 AM	Closed	Near Loss	Experienced two drive failure on SQL Database server. rick@timg3d03	Business Process	

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42544	Richmond, CA - Refinery	7/28/2012 7:00:00 AM	Fatality Gathering	Near Loss	Riop B-Crew worked understated below minimum crew.	Riop B-Crew went below minimum crew level. Minimum crew is 7 people. Riop worked with only 5 people for 7.5 hours. During the weekend of July 27 - 28, four of eight crew members were off crew. The off crew members list consisted of two planned vacancy's (1 vacation, 1 AB 109) and two unplanned (2 off sick). The standby person was called to cover a job. His still left one job vacant. Between the HO and STL, 10 phone (Phone & Cell) calls were made to C, D and E crew to back fill the vacancy. Of the 10 call/messages made no one bothered to answer or return a single call. One possible remedy to help avoid or mitigate this situation from happening again is to have two person standby lists in this section of Hydro	ML-Regulatory Compliance - Non Compliance	(1) Incident - wrong size PRD. 1. Why - ordered wrong size PRD 2. Why - job walk in 2011 verified information on 705 and 207 form saying 1.5" 300# flange required, when in the field it is actually 1.5" 150# flange 3. Why - 2011 job walk for PRDs were completed by various chevron mechanics (i.e. there wasn't a consistent level of knowledge). 2012 job walks are using the same personnel for all of the 2013 PRDs 4. Why - Lack of consistency on walking PRD jobs for the PRDs due for compliance in the following year
42603	Richmond, CA - Refinery	7/26/2012 12:00:00 AM	Closed	Near Loss	IL-3318 (PRD) for V-3337 Instrument Air Knockout Pot was pulled for PM replacement of the PRD. The spare PRD brought by maintenance did not fit.	This vessel is connected to V-3336 Instrument Air receiver which is protected by PRD's (IL-3303 and IL-3305) both set at 150 psig.	ML-Operational Process/Procedures - Pressure Relief Devices (PRD)	
42614	Richmond, CA - Refinery	7/28/2012 10:00:00 AM	Closed	Near Loss	AC Unit is at eye level & has a sharp edge on the bottom.	AC Unit is at eye level & has a sharp edge on the bottom. A few others have noticed this.	ML-Injury/Illness - Contractor Injury	
42692	Richmond, CA - Refinery	6/26/2012 12:00:00 PM	Closed	Loss	Missing Samples for Sphn Low Octane Test Run	Ons Planting requested a full set of samples on #6 Rheoflormer for improving Petro mode at 62 RCM. PED scheduled the test run for June 28th, 2012 with Ons Planting/Operations Coordination. PED followed Refinery Sampling JLA, updated GT-K-LUKS sample schedule for a test run with GCDS approval, and sent a detailed e-mailing of JLA to the refinery. The samples were taken on June 28th, 13:41 AM. The results of the test run were as follows: H2 V-590 off-gas C-4410 bottoms, and C-550 bottoms for GC-DHA were testing. By not having all the samples, an accurate mass balance/PETRO model update cannot be performed. The result is a delay in the PETRO model update. This resulted in a total loss of \$800 (CRIC charges \$400 for each GC-DHA test) in addition to hours spent coordinating sampling, tracking down samples, and investigation.	Business Process	(1) Test run procedure did not specify who was responsible for pulling each sample because in the past did not include and no incident occurred. (2) PED did not include a step in the test run communication to notify PED when all samples collected because not in JLA.
42750	Richmond, CA - Refinery	7/31/2012 7:31:00 AM	Fatality Gathering	Near Loss	Earlier this week at the Cracking and Hydro Operator Safety Meeting a discussion took place about a fatality on a cement / mortar mixer. When the Field Safety Coordinator was riding their bike by the SISO Flare K-1070 repair job he saw a cement / mortar mixer. He noticed that it did not have a properly functioning kill switch and the guarding was suspect. FISO talked to the crew working on the job about the non functional start / stop kill switch. The site foreman removed the equipment out of service and a NLI was entered.	Earlier this week at the Cracking and Hydro Operator Safety Meeting a discussion took place about a fatality on a cement / mortar mixer. When the Field Safety Coordinator was riding their bike by the SISO Flare K-1070 repair job he saw a cement / mortar mixer. He noticed that it did not have a properly functioning kill switch and the guarding was suspect.	ML-Operational Process/Procedures - Safety Systems	(1) What happened? At the SISO Flare Compressor K-1070 repair job cement / mortar mixer did not have a properly functioning kill switch and the guarding was suspect. Why did the above happen? 1. Because millwright mechanics were not instructed thru their training to visually inspect or test this kill switch prior to using the equipment. Why did the above happen? 2. Because a written procedure or standard was never created to inspect the equipment prior to use. Side note for the guard being suspect on the machine. It was not in use and the guarding was temporarily removed. The incident mentioned where a fatality occurred happened while the machine was running. This machine was not in use and so the guard being off or removed was not a safety hazard.

42790	Richmond, CA - Refinery	7/31/2012 AM	Fact Gathering	Near Loss	working on the job about the non functional start/stop fill switch. The site foreman removed the equipment out of service and a NJL was entered.	Earlier this week at the Cracking and Hydro Operator Safety Meeting a discussion took place about a failure on a control / motor mixer. When the Field Safety Coordinator was riding their bike by the SISO Flare K-1070 repair job he saw a current / motor mixer. He noticed that it did not have a properly functioning kill switch and the guarding was suspect.	NL-Injury/Illness - Employee Injury	never ceased to inspect the equipment prior to use. Side note for the guard being suspended on the machine. It was not in use and the guarding was temporarily removed. The incident mentioned where a failure occurred happened while the machine was running. This machine was not in use and so the guard being off or removed was not a safety hazard
42793	Richmond, CA - Refinery	7/23/2012 AM	Closed	Near Loss	Green Card, Bad steam leak. Location: RLOP V-1120	Green Card, Bad steam leak out to walkways and it's hard to see when working near the leak. Location: RLOP V-1120	NL-Injury/Illness - Contractor Injury	
42794	Richmond, CA - Refinery	7/23/2012 9:00:00	Closed	Near Loss	Green Card, Steam leak overhead on 3rd copper tubing needs to be fixed because hot condensate falling to walkways. Location: RLOP 10' N of LV11400	Green Card, Overhead steam leak on 3rd copper tubing needs to be fixed because hot condensate falling to walkways. Location: RLOP 10' North of LV11400	NL-Injury/Illness - Employee Injury	
42796	Richmond, CA - Refinery	7/24/2012 10:30:00	Closed	Near Loss	Green Card, Fuel leak on burner. Location: D&R F550V560	Green Card, White working on F-550 and deck on southside, we smelled a fuel gas leak. We called Operator Steve and snipped burners on F-550 and found leak on burner No. 8, South tip #2, due to broken weld. Location: D&R F-550V560	NL-Environmental - Operational Leak	
42803	Richmond, CA - Refinery	7/27/2012 1:45:00	Closed	Near Loss	Green Card, Span 8 contractor remove bolts from other contractors equipment. Location: Powerhouse	Green Card, I seen a contractor remove bolts from other contractors equipment which would cause those contractors delay from doing their job. Location: Powerhouse	NL-Business Process - Business Interruption	
42806	Richmond, CA - Refinery	7/27/2012 3:00:00	Closed	Near Loss	Green Card, Unwoven walking surface, tripping Green Card, Unwoven walking surface. Tripping hazard. Location: Powerhouse	Green Card, Unwoven walking surface. Tripping hazard. Location: Powerhouse	NL-Injury/Illness - Contractor Injury	
42806	Richmond, CA - Refinery	7/27/2012 9:00:00	Closed	Near Loss	Green Card, Found hoses and cords in front of ladder. Location: #1 Powerhouse/KS Boiler	Green Card, Found hoses and cords in front of ladder. Location: #1 Powerhouse/KS Boiler	NL-Injury/Illness - Employee Injury	
42808	Richmond, CA - Refinery	7/28/2012 7:30:00	Closed	Near Loss	Green Card, Release of inside CTR 80kg	Green Card, There is a release of air or some kind inside the front of CTR that operates all day. I have walked the area, but cannot pinpoint it. Location: CTR	NL-Injury/Illness - Contractor Injury	
42829	Richmond, CA - Refinery	8/1/2012 10:00:00	Fact Gathering	Loss	K-1050 tip	At 09:30 on the OWS-2 board operator received the High level alarm on V-1051 the mixer stage knockout on the Flare Gas compressors. The area operator was sent out to investigate the high level. Normal level control was not working, operations was in the process of bypassing the V-1051 level knockout V-1052 when level in V-1051 spiked and caused a shutdown of K-1050. K-1050 mixer was attempted twice but did not start due to the high level alarm still in alarm. Level V-1050 was depressed from V-1051 to V-1052 and level control resumed. K-1050 was depressed from V-1051 to V-1052 and compressor restart for 1 hour after the 2 unsuccessful restart attempts. RLOP ALNY FCC SISO NISO Flares all bopped their hotlines and pulled a sample. A Tilt V report was initiated and all 6 flare samples were sent to CDD. HES was informed.	Environmental	(1) Why did North yard flares trip totalizers and sampler? North yard flares tripped totalizers and sampler due to K-1050 shutdown. Why did K-1050 shutdown? K-1050 shutdown due to high level in V-1051. Why did a high level in V-1051 occur? High level building in V-1051 is due to High level in V-1051. Why was level building in V-1051? Arises at the time that the discharge line from P-1051 is plugged. Why Did V-1051 trips to high level trip of 70%? undetermined at this time.
42843	Richmond, CA - Refinery	8/1/2012 8:30:00	Fact Gathering	Loss	Contract employee twisted ankle.	Employee twisted ankle while working in area where rock crushing equipment was being shut down for the day.	Injury/Illness	(1) Why - Didn't recognize unwoven Surfaces. 2. Why - Employee was multi-tasking, not focused and jogging not walking. 3. Why - Complacency - Hazard and the risk of jogging not recognized. 4. Why - Didn't have eyes on the task and had acted the same way in the past without impact or injury.
42866	Richmond, CA - Refinery	7/31/2012 9:00:00	Fact Gathering	Near Loss	Elevated ammonia reading in Hydro GC sewer	On Tuesday (31 July) night Utility operator sampling Bio Inlet found High NH3 present. Moving upstream to 13 separators East & West, out let ramp the NH3 reading was above 80 PPM. All contributors (FCC/Alky, SRU and RLOP) were asked to check their system (sewer flowing to 13 Sep) for possible product containing NH3.	NL-Operational Process/Procedures - Plant Run Out/Slow Down	
42906	Richmond, CA - Refinery	8/2/2012 8:00:00	Closed	Near Loss	H2S Monitor Activation	While dealing up the area near K-500, which had a leaking flange, workers H2S monitor activated.	NL-Injury/Illness - Contractor Injury	(1) Incident Description: On July 23rd operations received a M/K-3 Molfin common trouble alarm (95X4302) on K-500. The operator investigated and found the delay was caused by the protective relay. A work order was written to replace the trip function on Monday July 24th, on the morning of July 24th the work order was reviewed during

https://impactterm.chevron.com/IMPACT/ANYWHERE/Reports/exports/scenario_159134_18a5390b-1e90-4874-b012-4d17412a3a40.htm 8/9/2012

42910	Richmond, CA - Refinery AM	7/23/2012 12:00:00	Fact Gathering	Near Loss	Loss of Protective Relay on MK-3	On July 23rd operations received a MK-3 Mullin common trouble alarm (935CA02) on Hotwell, the operator investigated and found the display was not working on this protective relay.	NI - Equipment/Property Damage - Equipment	(1) - There wasn't any followup of invoices for approval to assure prompt payment. (2) No rejection process set for the processing and tracking of invoices. (3) Previous Safety Analysis did not see value for this item to be in desk manual to cover it in turnover. (4) Followed a process that did not have adequate tracking of the invoice.
42973	Richmond, CA - Refinery PM	8/16/2012 12:00:00	Closed	Near Loss	Almost took a penalty for late payment to CUPA	Payment on Invoices due for ISO Permit Year 2011/12 and Unannounced Inspections Fee for Permit Year 2011/12 were delayed and could have resulted in a penalty.	NI - Business Process	
43000	Richmond, CA - Refinery AM	8/3/2012 12:00:00	Fact Gathering	Loss	F-305 (B Cell) Pig Tail leak in vicinity of Tube B43 / 155	During 1st rounds the S, 1st AOC Operator discovered what appeared to be a pig tail leak on F-305 (B Cell). Inspections was called and confirmed a pig tail leak in the vicinity of burner B43 / 155. The recommendation was made to pull natural gas feed on B cell and make preparations to patch whichever valve was determined to be leaking.	Equipment/Property Damage	
43000	Richmond, CA - Refinery AM	8/3/2012 12:00:00	Fact Gathering	Loss	F-305 (B Cell) Pig Tail leak in vicinity of Tube B43 / 155	During 1st rounds the S, 1st AOC Operator discovered what appeared to be a pig tail leak on F-305 (B Cell). Inspections was called and confirmed a pig tail leak in the vicinity of burner B43 / 155. The recommendation was made to pull natural gas feed on B cell and make preparations to patch whichever valve was determined to be leaking.	Operational Procedures	
43087	Richmond, CA - Refinery AM	8/8/2012 6:37:00	Fact Gathering	Loss	Visible Flaring from FCC	Early before shift change on 8/8/12, the FGR system began to build pressure and high flow was experienced at 6:37 a.m. The FCC totalizer tripped and visible flaring was detected from the FCC flare. Upon further investigation, the source appears to be coming from a plant and source testing and PED are involved with locating the source. Further initial action also show a high DP in V-1050, thus indicating a plugged or faulty damper pad.	Environmental	
43087	Richmond, CA - Refinery AM	8/8/2012 6:37:00	Fact Gathering	Loss	Visible Flaring from FCC	Early before shift change on 8/8/12, the FGR system began to build pressure and high flow was experienced at 6:37 a.m. The FCC totalizer tripped and visible flaring was detected from the FCC flare. Upon further investigation, the source appears to be coming from a plant and source testing and PED are involved with locating the source. Further initial action also show a high DP in V-1050, thus indicating a plugged or faulty damper pad.	NI - Environmental - Release	
43094	Richmond, CA - Refinery PM	8/8/2012 5:30:00	Fact Gathering	Loss	4 Side CUI suction line piping leak	The suction line to P-1149 had a leak on the line, the leak caught fire	Fire/Explosion	
43094	Richmond, CA - Refinery PM	8/8/2012 5:30:00	Fact Gathering	Loss	4 Side CUI suction line piping leak	The suction line to P-1149 had a leak on the line, the leak caught fire	Loss of Containment	
43094	Richmond, CA - Refinery PM	8/8/2012 5:30:00	Fact Gathering	Loss	4 Side CUI suction line piping leak	The suction line to P-1149 had a leak on the line, the leak caught fire	Equipment/Property Damage	
43094	Richmond, CA - Refinery PM	8/8/2012 5:30:00	Fact Gathering	Loss	4 Side CUI suction line piping leak	The suction line to P-1149 had a leak on the line, the leak caught fire	Injury/Illness	
43099	Richmond, CA - Refinery PM	8/8/2012 0:35:00	Fact Gathering	Loss	Relief flow to FCC Rate during Park rate reductions in response to 4 CUI shutdown.	While rapidly posturing units due to loss of feed from 4 Crusis until there was flow to relief which tripped the following flow compliance samplers, FCC flare, RLOP Flare and N, Isomax flares.	Environmental	
43099	Richmond, CA - Refinery PM	8/8/2012 0:35:00	Fact Gathering	Loss	Relief flow to FCC Rate during Park rate reductions in response to 4 CUI shutdown.	While rapidly posturing units due to loss of feed from 4 Crusis until there was flow to relief which tripped the following flow compliance samplers, FCC flare, RLOP Flare and N, Isomax flares.	Environmental	

43143	Richmond, CA - Refinery AM	7:00:00	Closed	Near Loss	pipe rack above P-105B. Location: FCC	Green Card. Water leak in pipe rack above P-105B is creating slip hazard (eagle on foot). Almost slipped carrying material. Location: FCC	NL-Injury/Illness - Contractor injury.	
43143	Richmond, CA - Refinery AM	7:00:00	Closed	Near Loss	pipe rack above P-105B. Location: FCC	Green Card. Water leak in pipe rack above P-105B is creating slip hazard (eagle on foot). Almost slipped carrying material. Location: FCC	NL-Injury/Illness - Employee injury	
43143	Richmond, CA - Refinery AM	7:00:00	Closed	Near Loss	pipe rack above P-105B. Location: FCC	Green Card. Water leak in pipe rack above P-105B is creating slip hazard (eagle on foot). Almost slipped carrying material. Location: FCC	NL-Lessons Learned	
43146	Richmond, CA - Refinery PM	3:00:00	Closed	Near Loss	Green Card. LPG railhead wheel is off the track. Location: R&G Gate	Green Card. LPG railhead was parked up on top of truck, one of the wheels is off the track. Location: Railhead by the Rod and Gun Gate	NL-Lessons Learned	
43167	Richmond, CA - Refinery PM	8:27:00	Investigation in Progress	Loss	PINCHED FINGER	INITIAL DESCRIPTION: SEE LINK ATTACHED IN INVESTIGATION FOR COMPLETE REPORT. 8/22/2012. GREEN CARD. RSL. UNCOVERER DID NOT ADEQUATELY DESCRIBE FLANGE LEAK INCIDENT. LOCATION: HYDRO (K-400 IN TKC)	Injury/Illness	
43166	Richmond, CA - Refinery PM	5:52:00	Closed	Near Loss	Cogen Line 2 isolated from SOGS due to faulty relay.	Breakers 115-723 and 115-432 @ SOGS tripped open due to failure of faulty Cogen Line 2 was isolated from SOGS. The faulty relay was identified as the 87L2-IP CCB 2 relay.	NL-Business Process Interruption	
43161	Richmond, CA - Refinery PM	11:00:00	Closed	Near Loss	Unauthorized transfer to a feed tank.	Started moving TKX without complete lab results to a feed tank.	NL-Quality - Product Quality (lit)	
43206	Richmond, CA - Refinery PM	4:40:00	Closed	Near Loss	Green Card. Person driving too fast in parking lot. Location: 91 Gate	Green Card. Person driving too fast in parking lot. Location: 91 Gate	NL-Lessons Learned	
43207	Richmond, CA - Refinery AM	11:00:00	Closed	Near Loss	Green Card. Found aerosol can in garbage pad. Location: BAS 95 Tank Pad	Green Card. Found aerosol can in garbage pad. Location: BAS 95 Tank Pad	NL-Lessons Learned	
43208	Richmond, CA - Refinery PM	1:30:00	Closed	Near Loss	Green Card. Contractor lost his earplug. Location: Nicot/CWT	Green Card. Contractor lost his earplug. Location: Nicot/CWT	NL-Lessons Learned	
43212	Richmond, CA - Refinery PM	4:30:00	Closed	Near Loss	Green Card. A driver using cell phone while driving. Location: 91 Gate parking lot	Green Card. A driver was on a cell phone while driving. Location: 91 Gate parking lot	NL-Lessons Learned	
43214	Richmond, CA - Refinery PM	12:40:00	Closed	Near Loss	Green Card. Leak of hot steam water. Location: Powerhouse, #1 Boiler	Green Card. A1 was working the Powerhouse for hazards after lunch. I noticed a leak of hot steam water coming from above at Boiler #1. Location: Powerhouse, #1 Boiler	NL-Lessons Learned	
43215	Richmond, CA - Refinery AM	9:20:00	Closed	Near Loss	Green Card. Contractor wanted to take measurements in tank. Location: BAS TK1607	Green Card. Contractor engineer wanted to take measurements in tank that other contractor sabotaged. Location: BAS TK1607	NL-Lessons Learned	
43216	Richmond, CA - Refinery PM	2:00:00	Closed	Near Loss	Green Card. Driver in a vehicle talking on cell phone. Location: Channel St.	Green Card. Driver in a vehicle talking on a cell phone. Location: Channel St.	NL-Lessons Learned	
43218	Richmond, CA - Refinery AM	11:30:00	Closed	Near Loss	Green Card. Trailer with fatigue always open. Location: Xylene Rd.	Green Card. At the contractors yard there's a trailer across from SS storage area with the fatigue always open with no cones or barricade warning others of the hazards. Location: Contractors yard at Xylene St.	NL-Lessons Learned	
43221	Richmond, CA - Refinery PM	12:30:00	Closed	Near Loss	Green Card. Need good housecleaning in area. Location: NISO P-501	Green Card. Me and the crew have been doing good housecleaning around P-501 but we don't have a lot of time to clean all the pumps in the area. We need a labor crew to help clean the area. Location: N. Isomex P-501	NL-Lessons Learned	
43226	Richmond, CA - Refinery AM	5:00:00	Closed	Near Loss	Green Card. RSL. Uncoverer did not adequately describe flange leak incident. Location: Hydro (K-400 in TKC)	Green Card. End-of-shift RSL, uncoverer did not adequately describe flange leak incident that shut down K-400 requiring pulling feed from TKC. All tank's event from the uncoverer is that the feed rate and recovered oil rates were at zero - no explanation of why. Location: Hydroprocessing (K-400 in TKC)	NL-Lessons Learned	

	Richmond, CA - Refinery	8/7/2012 1:30:00 PM	Fuel Gathering	Near Loss	Green Card. Slippery surfaces on deck. Location: 9 Plant, K-900 Deck	Green Card. Slippery surfaces on deck. Location: 9 Plant, K-900 Deck	NL-Lessons Learned	
43227	Richmond, CA - Refinery	8/7/2012 2:30:00 PM	Fuel Gathering	Near Loss	Green Card. Tons of debris on deck. Location: 9 Plant K-900 Top Deck	Green Card. Tons of debris on deck. Could have slipped or tripped. Location: 9 Plant K-900 Top Deck	NL-Lessons Learned	
43228	Richmond, CA - Refinery	8/7/2012 2:00:00 PM	Fuel Gathering	Near Loss	Green Card. Steam trading line is not insulated. Location: 9 Plant K-900 Deck	Green Card. Steam trading line is not insulated. Almost got burned. Location: 9 Plant K-900 Deck	NL-Lessons Learned	

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IPS LI/NLI Search for Dates 7/1/2009 to 10/31/2010

LI/NLI
Chosen:

LI - Abnormal Freight, LI - Abnormal Supply Occurrence, LI - Business Interruption, LI - Business Interruption/EVR-ISO, LI - Business Loss, LI - Business Process, LI - Community Inquiry, LI - Contractor Days Away From Work Case, LI - Contractor First Aid, LI - Contractor Medical w/o lost time, LI - Criminal Activity, LI - Days Away From Work Case, LI - Employee Theft (Merchandise), LI - Equipment Damage, LI - Equipment Failure, LI - Equipment/Unit Trip, LI - Fire/Explosion, LI - First Aid, LI - First Aid with Medical Referral, LI - General Liability, LI - Inadvertent Release of Hazardous Vapor (IRHV), LI - Incorrect Product, LI - Incorrect Volume, LI - Loss of Containment (LOC) Corp Reportable, LI - Loss of Containment (LOC) Tier 1, LI - Loss of Containment (LOC) Tier 2, LI - MVC - Company, LI - MVC - Contractor, LI - MVC - Personal Use, LI - Medical w/o Lost Time, LI - NOV - Air, LI - NOV - Price Scanning, LI - NOV - Water, LI - NSR Consent Decree, LI - Non-Compliance Company Policy, LI - Non-Compliance Government Requirement, LI - Non-Industrial, LI - Notice of Violation, LI - Operational Leak, LI - Paperwork incorrect/nois sent, LI - Permit Exceedance, LI - Plant Run-Dut/Slow Down, LI - Preferred Contractor - MVC, LI - Preferred Contractor - Spill, LI - Product Contamination (Ext), LI - Product Contamination (Int), LI - Product Mis-Delivery, LI - Product Quality (Ext), LI - Product Quality (Int), LI - Product Unavailable, LI - Quality Management System, LI - Release, LI - Safe Operating Limit (SOL) Exceeded, LI - Safety

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
1984185	7/15/2010	LI	LI - Criminal Activity	Level 1	Level 1	Loss of non-GIL Laptop computer from the I&E Training Center, bldg 520 Hensley Facility. Last seen	Richmond Refinery	Development Department Facility (Rich)				
1826853	1/20/2010	LI	LI - Criminal Activity	Level 1	Level 1	Projector INFocus IN2102 ordered from "Projector People" January 13, 2010. Delivered to Lancaster L	Richmond Refinery	Development Department Facility (Rich)				
1673676	10/14/2009	LI	LI - Contractor First Aid	Level 1	Level 1	Employee was experiencing discomfort in his right wrist while at his computer work station.	Richmond Refinery	Development Department Facility (Rich)				
1541615	7/7/2009	LI	LI - Contractor Medical w/o lost time	Level 2	Level 2	Worker was assisting in loading a piping manifold in to the back of a Matrix pickup truck. The load	Richmond Refinery	Development Department Facility (Rich)				
1859337	10/1/2009	LI	LI - Non-Industrial	Level 1	Level 2	Employee complained of non-work related medical problem. Plant Protection responded, and employee w	Richmond Refinery	Development Department Facility (Rich)				
1983587	7/19/2010	LI	LI - Non-Industrial	Level 1	Level 1	Fitness Center member pinched finger between a dumbbell and the dumbbell rack - which resulted in br	Richmond Refinery	Health Quest/Fitness Ctr/Conference Ctr Area				
1618126	12/10/2009	LI	LI - Criminal Activity	Level 1	Level 1	Laptop that the Fitness Center Staff used for Health and Wellness Lecture delivery was taken out of	Richmond Refinery	Health Quest/Fitness Ctr/Conference Ctr Area				
1594724	8/18/2009	LI	LI - Criminal Activity	Level 1	Level 1	Safety On-Call bag stolen from car located at 1444 Cloudview Drive, Pleasant Hill, CA. Bag contained	Richmond Refinery	Offsite				
1861587	3/11/2010	LI	LI - Contractor First Aid	Level 1	Level 2	While EE was delivering equipment to Bactria Fab he exited his vehicle he rolled his ankle	Richmond Refinery	Offsite				
1870471	3/25/2010	LI	LI - Business Process	Level 1	Level 1	Business Plan Roll Out Feb 11 & 25, 2010	Richmond Refinery	Offsite				
2007367	8/18/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Railserve locomotive 201 derailed 2 axles (4 wheels) at approximately 2:30PM. The derailment occ	Richmond Refinery	Offsite				
1958645	6/21/2010	LI	LI - Equipment Damage	Level 1	Level 1	RTD driver went Benicia Fabricating company to pick up two exchanger bundles, while in transport the	Richmond Refinery	Offsite				
1935457	6/28/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Railserve locomotive 202 was shoving 4 empty cars down the runaround lead in the railcar storage yar	Richmond Refinery	Offsite				
1588510	8/12/2009	LI	LI - Business Interruption	Level 1	Level 1	Mail truck driver had a white powder substance in small quantity come out of a magazine and got on h	Richmond Refinery	Purchasing & Materials Management				
1642990	9/22/2009	LI	LI - Release	Level 1	Level 1	Empty propane odorant cylinder at the # 8 warehouse was found to be leaking from the threads between	Richmond Refinery	Purchasing & Materials Management				
1715079	11/11/2009	LI	LI - Contractor First Aid	Level 1	Level 1	Particle In Eye - On Wednesday 11/11 at about 3:30pm worker was over at the 8 Warehouse spare parts	Richmond Refinery	Purchasing & Materials Management				
1938851	5/26/2010	LI	LI - Equipment Damage	Level 1	Level 1	Chevron Energy Solutions (subcontractor) installing a meteorological Wind Tower hit the ground as it	Richmond Refinery	Reclamation				
1722130	1/22/2009	NLI	NLI - Non-Compliance	No Level Selected	Level 1	Dumpster bins of excavated soil were stored temporarily on Refinery land leased to others without pr	Richmond Refinery	Reclamation				
1862112	3/12/2010	LI	LI - Spill	Level 1	Level 1	An estimated 20 - 25 gal. of transformer oil spilled to soil in the reclamation yard. The transform	Richmond Refinery	Reclamation				
1707919	11/7/2009	LI	LI - Equipment Damage	Level 1	Level 2	At approximately 9:15 am while excavating for the installation of a new 18" & 6" HOPE line at gate 1	Richmond Refinery	Reclamation				
1971604	6/30/2010	LI	LI - Equipment Damage	Level 1	Level 1	While loading into the EOD van at S3 Gate prior to the beginning of their shift, Operators noticed d	Richmond Refinery	Refinery General				
1851642	3/2/2010	LI	LI - MVC - Contractor	Level 1	Level 1	The less type of MVC-Contractor was selected, however, the person involved is a city of Richmond emp	Richmond Refinery	Refinery General				
1619730	8/25/2009	LI	LI - Product Quality (Int)	Level 1	Level 2	TOP INVESTIGATION-H2S IN DIESEL-Samples from tank T-3185 were sent to the Quality Control Dept for	Richmond Refinery	Refinery General				
1559412	7/21/2009	LI	LI - Non-Industrial	Level 1	Level 2	Employee indicated that he has had weak knees over the last few months. He was taken to Concensus M	Richmond Refinery	Refinery General				
1990009	8/12/2009	LI	LI - Equipment Damage	Level 1	Level 1	Goebel Paving was moving bin # 251017 at Xylene and Armonia Streets using back hoe and accidentally	Richmond Refinery	Refinery General				
1967102	6/28/2010	LI	LI - Security Incident	Level 1	Level 1	Loss/Near Loss and Root Causes/Solutions information is considered security sensitive information an	Richmond Refinery	Refinery General				
1967102	6/28/2010	LI	LI - General Liability	Level 1	Level 1	Loss/Near Loss and Root Causes/Solutions information is considered security sensitive information an	Richmond Refinery	Refinery General				
1993322	8/10/2009	LI	LI - First Aid	Level 1	Level 2	Recent keeping purpose only, no injury at this time - Healing shift.	Richmond Refinery	Refinery General				
1589377	8/13/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 2	TOP INVESTIGATION-LOSS OF RADIO COMMUNICATION	Richmond Refinery	Refinery General				
1589377	8/13/2009	LI	LI - Equipment Failure	Level 1	Level 2	TOP INVESTIGATION-LOSS OF RADIO COMMUNICATION	Richmond Refinery	Refinery General				
1856194	3/8/2010	LI	LI - Spill	Level 1	Level 1	5 Gallons of oil had spilled to the ground after a roll off truck driver had scraped the oil pan on	Richmond Refinery	Refinery General				
1992073	8/14/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	Upon discovering an air leak on his truck, the employee pulled into the Goebel Paving Compound to in	Richmond Refinery	Refinery General				
1982993	7/10/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	Problems with the on-call system and gaps in guidance - there was some confusion and a delay in gett	Richmond Refinery	Refinery General				
1741659	11/24/2009	NLI	NLI - Non-Compliance - Air	No Level Selected	Level 1	Newly ordered fuel gas drum F25 callorallen gases arrived late than expected. A spare cylinder callb	Richmond Refinery	Refinery General				
1719333	9/16/2009	NLI	NLI - PSM/QSHA	No Level Selected	Level 1	In Sept 2009, the PSM team identified 15 PHA and City of Richmond Industrial Safety Ordinance (CORA)	Richmond Refinery	Refinery General				
1916550	5/3/2010	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	Driver of vehicle accelerated and ran a stop sign while making a right turn. This occurred at the Int	Richmond Refinery	Refinery General				
1916550	5/3/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	Driver of vehicle accelerated and ran a stop sign while making a right turn. This occurred at the Int	Richmond Refinery	Refinery General				
1854511	3/4/2010	NLI	NLI - MVC - Contractor	No Level Selected	Level 1	Minor MVC at scale house with a contractor truck driver who struck a yellow pole - This incident occ	Richmond Refinery	Refinery General				
1860146	3/16/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	A Contra Costa County Health Services Department's Audit finding:	Richmond Refinery	Refinery General				
1868265	3/16/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	Contra Costa County Health Services Department's Audit findings for:	Richmond Refinery	Refinery General				
1895123	4/12/2010	NLI	NLI - Business Interruption	No Level Selected	Level 1	State officials from the Bay Area Quality Management District called around 09:20 to announce a rout	Richmond Refinery	Refinery General				
1895123	4/12/2010	NLI	NLI - Business Process	No Level Selected	Level 1	State officials from the Bay Area Quality Management District called around 09:20 to announce a rout	Richmond Refinery	Refinery General				
1942831	6/1/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 3a	This NLI is entered to allow Richmond Refinery to track corrective actions as a result of the Manufa	Richmond Refinery	Refinery General				
1879160	3/25/2010	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	Incident Description:	Richmond Refinery	Refinery General				
1848227	3/16/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	Contra Costa County Health Services Department's Audit findings for Underground Storage Tank Act	Richmond Refinery	Refinery General				
1928743	5/17/2010	NLI	NLI - Non-Compliance - Air	No Level Selected	Level 2	NLI - Title V requires a minimum seven day notification to the BAAQMD prior to conducting Relative	Richmond Refinery	Refinery General				
1884177	3/29/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 3b	This incident was reviewed as part of the Global Manufacturing Lessons Learned process. It was decid	Richmond Refinery	Refinery General				
1884177	3/29/2010	NLI	NLI - Employee Injury	No Level Selected	Level 3b	This incident was reviewed as part of the Global Manufacturing Lessons Learned process. It was decid	Richmond Refinery	Refinery General				
1922937	4/15/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	On April 15th an exceedance of the Cogen NOx limit occurred. HES needed to know the amount of exces	Richmond Refinery	Refinery General				
1619169	8/9/2009	LI	LI - Business Process	Level 1	Level 1	Less than 1 month prior to the Richmond RLOP turnaround, the expected turnaround duration was reduce	Richmond Refinery	Refinery General				
1555112	7/20/2009	LI	LI - Equipment Damage	Level 1	Level 2	At 8:30AM on Monday morning, July 20, a delivery truck driver was delivering two columns to the Rene	Richmond Refinery	Refinery General				
1505411	8/17/2009	LI	LI - Business Interruption	Level 1	Level 1	Rhenformer feed was reduced sooner than it needed to be to cut back H2 export for HNF catalyst redu	Richmond Refinery	Refinery General				
1614741	7/16/2009	LI	LI - NSR Consent Decree	Level 1	Level 1	As required by the CD, a 3rd party audit on the refinery's LDAR program was conducted in July 2009.	Richmond Refinery	Refinery General				
1562109	7/17/2009	LI	LI - MVC - Contractor	Level 1	Level 1	Contract EE driving a Chevron vehicle bagged at 137 Gate the gate opened, the EE drove forward and t	Richmond Refinery	Refinery General				
1990059	7/27/2010	LI	LI - Spill	Level 1	Level 1	Clean Harbors' roll-off truck spills approximately 3 gallons of diesel to asphalt covered soil at BS	Richmond Refinery	Refinery General				
1990059	7/27/2010	LI	LI - Equipment Damage	Level 1	Level 1	Clean Harbors' roll-off truck spills approximately 3 gallons of diesel to asphalt covered soil at BS	Richmond Refinery	Refinery General				
1537462	7/9/2009	LI	LI - Spill	Level 1	Level 1	TOP INVESTIGATION-DIESEL GAS ONTO STREET-CTR (Central Tool Room) was notified that a 100KW generat	Richmond Refinery	Refinery General				
1556994	3/9/2010	LI	LI - MVC - Contractor	Level 1	Level 1	TOP INVESTIGATION-CONTRACTOR HIT POLE-While leaving the Project Trailer parking lot in their work	Richmond Refinery	Refinery General				
1684676	10/28/2009	LI	LI - MVC - Company	Level 1	Level 1	RTD driver was attempting to badge out of the Rod and Gun into the refinery. Upon the first attempt	Richmond Refinery	Rod & Gun Club				
1590602	6/12/2009	LI	LI - First Aid	Level 1	Level 1	Employee experienced shoulder discomfort.	Richmond Refinery	Technical Center / Cafeteria				
1786052	1/13/2010	LI	LI - First Aid	Level 1	Level 1	Employee's hand hit wall & edge of notice board while taking an organized stretch break. Slight cu	Richmond Refinery	Technical Center / Cafeteria				
1879359	3/24/2010	LI	LI - First Aid	Level 1	Level 1	employee was washing a small steak knife his hand in the kitchen with a wash scrub. He was distract	Richmond Refinery	Technical Center / Cafeteria				
1916494	5/3/2010	LI	LI - Contractor First Aid	Level 1	Level 2	Contractor engineer lost his footing and fell walking in the cafeteria parking lot. Plant protection	Richmond Refinery	Technical Center / Cafeteria				
1995998	7/29/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	Missed drain inspections - During review of the semi-annual report due to the EPA for New Source Per	Richmond Refinery	Technical Center / Cafeteria				
2039201	9/23/2010	NLI	NLI - Business Process	No Level Selected	Level 1	Safety on-call bag was turned over by leaving the on-call bag in an office of a team member that was	Richmond Refinery	Technical Center / Cafeteria				
1595255	8/18/2009	LI	LI - Non-Industrial	Level 1	Level 1	EE felt light headed while in the Tech Center. EE went to the clinic to be evaluated and it was det	Richmond Refinery	Technical Center / Cafeteria				
1546753	7/10/2009	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	Vehicle driven wrong way (one way street) on road behind Cafeteria.	Richmond Refinery	Technical Center / Cafeteria				
1602812	8/24/2009	NLI	NLI - Business Interruption	No Level Selected	Level 1	On the morning of August 24, a contract employee was attempting to toast a bagel using a convection	Richmond Refinery	Technical Center / Cafeteria				
1691228	10/27/2009	NLI	NLI - Employee Injury	No Level Selected	Level 1	Caught my foot in in the cord attached to a USB flash drive. No injury or damage to the GIL comput	Richmond Refinery	Technical Center / Cafeteria				
1691228	10/27/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Caught my foot in in the cord attached to a USB flash drive. No injury or damage to the GIL comput	Richmond Refinery	Technical Center / Cafeteria				
1667109	8/22/2009	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	Trade Secret Protection Omitted - A report was filed with an Agency without the proper labelling for	Richmond Refinery	Technical Center / Cafeteria				
1678536	10/8/2009	NLI	NLI - Business Interruption	No Level Selected	Level 1	Unable to review archived DVD's of Flame VideoImages. During an urgent review of the flame DVD's i	Richmond Refinery	Technical Center / Cafeteria				
1921251	5/6/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	LI Description:	Richmond Refinery	Technical Center / Cafeteria				
1670188	10/8/2009	NLI	NLI - Air	No Level Selected	Level 1	FMP update - omission of information. The annual update of the Flare Minimization Plan was submitte	Richmond Refinery	Technical Center / Cafeteria				
1995849	8/9/2010	NLI	NLI - Business Process	No Level Selected	Level 1	HES OE metric reporting for 2Q 2010 was submitted after the 2009 deadline on Aug. 2, 2010. Final en	Richmond Refinery	Technical Center / Cafeteria				
1959406	6/28/2010	NLI	NLI - Non-Compliance - Air	No Level Selected	Level 1	Compliance plans have been developed for most Air Quality regulatory areas, but not all plans are co	Richmond Refinery	Technical Center / Cafeteria				
2006743	8/9/2010	NLI	NLI - Paperwork Incorrect/Not Sent	No Level Selected	Level 1	The action to correct the North Iomax NZ holder size in the Hazardous Material Business Plan / Chem	Richmond Refinery	Technical Center / Cafeteria				
2006743	8/9/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 1	The action to correct the North Iomax NZ holder size in the Hazardous Material Business Plan / Chem	Richmond Refinery	Technical Center / Cafeteria				
2057299	10/28/2010	LI	LI - MVC - Contractor	Level 1	Level 1	IMPACT Rekey Loss ID 1275	Richmond Refinery	Admin Building				
1865443	2/28/2010	NLI	NLI - Business Interruption	No Level Selected	Level 2	When the TKN4Rhen4H2S4-BB Train cluster shut down on 2/28/2010, there was not enough H2 availabl	Richmond Refinery	Admin Building				
2008927	8/1/2010	LI	LI - Incorrect Volume	No Level Selected	Level 1	A preliminary stock balance is created on the first work day of each month to help calculate estimat	Richmond Refinery	Admin Building				
1897919	2/12/2010	LI	LI - First Aid	Level 1	Level 1	Record keeping purpose only, no injury at this time - Worker Compensation request	Richmond Refinery	Admin Building				
2008927	8/1/2010	NLI	NLI - Business Process	No Level Selected	Level 1	A preliminary stock balance is created on the first work day of each month to help calculate estimat	Richmond Refinery	Admin Building				
1657989	9/30/2009	LI	LI - First Aid	Level 1	Level 2	Employee missed last step when descending stairs and fell resulting in a minor ankle sprain to left	Richmond Refinery	Admin Building				
1697369	10/30/2009	NLI	NLI - Spill	No Level Selected	Level 3a	This entry is a Near Loss to allow for tracking of the Buncfield tank incident lessons learned and	Richmond Refinery	Blending & Shipping (Rich)	B&S General (Rich)	B&S Admin Office		
1766359	12/20/2009	LI	LI - First Aid	Level 1	Level 1	EE had a spasm in his lower back while leaning over the water cooler. EE has pre-existing condition	Richmond Refinery	Blending & Shipping (Rich)	B&S General (Rich)	B&S Control House		
1925271	5/13/2010	NLI	NLI - General Liability	No Level Selected	Level 1	Contractor was lifting 50 lbs sacks of Soda Ash up a ladder to be emptied into a Poly Tank. The emp	Richmond Refinery	Blending & Shipping (Rich)	B&S General (Rich)	B&S Control House		
1895480	4/6/2010	NLI	NLI - Business Interruption	No Level Selected	Level 1	Work to replace/reface kitchen cabinetry in the B&S control room commenced before CSR was created or	Richmond Refinery	Blending & Shipping (Rich)	B&S General (Rich)	B&S Control House		
1780593	1/5/2010	LI	LI - Equipment Damage	Level 1	Level 1	While lowering a manlift, the manlift came in contact with a parked truck. No one was in the parked	Richmond Refinery	Blending & Shipping (Rich)	B&S General (Rich)	B&S Control House		
1725334	11/19/2009	LI	LI - MVC - Company	Level 1	Level 1	While backing a company truck up in Berth#1 in order to pull forward and leave the area, another comp	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 1		
1877380	8/3/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	While working off of an approx 4' X4' wooden work platform that was hung off the front of the wharf	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 2		
1770436	12/23/2009	NLI	NLI - Spill	No Level Selected	Level 2	Colorado Voyager crew members reported irreducible bubbles near the stern of the vessel. The bubble	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 2		
1980776	6/11/2010	LI	LI - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-On June 11, 2010 at 19:30, the Wharf Head Operator (HJO) notified the Shift Team L	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 3		
1919471	5/6/2010	LI	LI - Operational Leak	Level 2	Level 2	At 08:45 operator doing his hourly round, The Operator adjusted the vapor crane. He noticed the Hydra	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 3		
2047666	10/20/2010	LI	LI - Spill	Level 2	Level 2	REKEY IMPACT ID 688.	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 3		

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
1812625	2/2/2010	U	LI - Non-Industrial	Level 1	Level 1	Illness: Security officer berth 3 illness non-industrial.	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 3		
1788751	1/15/2010	U	LI - Equipment Failure	Level 1	Level 1	At about 1425 hours on 1/15 the Mississippi Voy, docked at Berth #3 had a flame out on their (Inert	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 3		
1884501	7/25/2010	U	LI - Days Away From Work Case	Level 2	Level 2	The long wharf crew moved the Polar Adventure at Berth#4 at 6:45 PM July 25th. Both bow and stern h	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 4		
1826659	9/10/2009	U	LI - Days Away From Work Case	Level 2	Level 3b	TAFROOT While towing oil spill boom with 25ft line schackle that was connected to the boom failed and	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 4		
1831586	5/20/2010	NLI	NU - Release	No Level Selected	Level 1	Odor detected off of the stern of the Orion Voyager in berth #4. Product discharge shut down and Che	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 4		
1873145	7/6/2010	U	LI - Paperwork incorrect/not sent	Level 1	Level 1	Ship arrived in Berth 4 without its pre-arrival information Form #1301 unaware once on site the cargo	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 4		
1873145	7/6/2010	U	LI - Business Interruption	Level 1	Level 1	Ship arrived in Berth 4 without its pre-arrival information Form #1301 unaware once on site the cargo	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 4		
2020970	9/2/2010	U	LI - First Aid	Level 1	Level 1	The mechanic and co worker stated working on the berth 4 hydraulic cylinder install about 8 AM. Th	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth 4		
1857716	9/30/2009	U	LI - Operational Leak	Level 1	Level 3a	While using P-1 at the lab, to suck out the 1-8 gas line for maintenance a 3/4" threaded line spru	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1868629	10/29/2009	U	LI - Contractor First Aid	Level 1	Level 2	While moving a 3 part coating for rebar (Amatex) some of mix A splashed up and hit worker in the	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1877664	7/30/2009	U	LI - First Aid	Level 1	Level 1	A Company Electricians was given a work order to remove old conduit from the side of the causeway at	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1815127	2/4/2010	U	LI - Equipment Damage	Level 1	Level 1	DELIVERING RENTAL EQUIPMENT TO THE WHARF. DELIVERY TRUCK DID NOT HAVE A PUCK. TRUCK WAS	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1847403	9/25/2009	U	LI - First Aid	Level 1	Level 1	While preparing for lunch a contract employee removed her spoggles and hardhat. She noticed an inft	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1917281	4/26/2010	U	LI - Equipment Damage	Level 1	Level 1	While maneuvering along the causeway to facilitate the electricians (Newtron) to access the condui	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1908066	4/26/2010	NLI	NU - Lessons Learned	No Level Selected	Level 1	Work boat capsized while (2) contractors were returning to the extraction point due to choppy water	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
2035906	9/28/2010	U	LI - Contractor First Aid	Level 1	Level 1	Contract employee was performing traffic control duties on the Long Wharf causeway and was stung by	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1803381	1/24/2010	U	LI - Equipment Failure	Level 1	Level 1	ERD was up and running to temperature but it wasn't sending data to Honeywell, so after awhile of no	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1888337	3/17/2010	NLI	NU - Equipment Damage	No Level Selected	Level 1	Foundation anchor bolts for Jib cranes were bent during installation	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1818198	2/9/2010	U	LI - Contractor First Aid	Level 1	Level 1	Employee was using tin snips to cut a piece of sheet metal, when small piece stuck him on the lower	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1700815	1/12/2009	U	LI - Spill	Level 1	Level 1	09:00hrs-Contractor working at Wharf Lab gas area notified Wharf Safety Operator of hydrocarbon odor	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
1723174	1/11/2009	U	LI - MVC - Contractor	Level 1	Level 1	When backing and turning out of a diagonal parking space next to the Wharf machine shop there was a	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Berth, other berths		
2002813	8/6/2010	U	LI - Product Unavailable	Level 1	Level 1	The gasoil delivered on the Energy Champion had considerably higher chlorides (as high as 30 ppm as	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Shore Tanks		
1906635	4/19/2010	NLI	NU - Business Process	No Level Selected	Level 1	While one contract company was lifting (with rope by hand) a bundle of clamps, elbows and misc pipe	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Shore Tanks		
2002813	8/6/2010	U	LI - Product Quality (Ext)	Level 1	Level 1	The gasoil delivered on the Energy Champion had considerably higher chlorides (as high as 30 ppm as	Richmond Refinery	Blending & Shipping (Rich)	Long Wharf (Rich)	Shore Tanks		
1916085	5/3/2010	U	LI - Spill	Level 1	Level 1	Vacuum truck spilled cutter out of its exhaust hose onto the asphalt at #1 pumpstation while working	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#1 Pump Station		
1876291	8/2/2009	U	LI - Operational Leak	Level 1	Level 1	While the SDA was flushing cutter down the 10" Tar line, operators found the mechanical seal on P-2 h	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#1 Pump Station		
1991370	7/28/2010	U	LI - Contractor First Aid	Level 1	Level 2	Vacuum truck driver was climbing into the passenger side of the vacuum truck when his foot slipped o	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#1 Pump Station		
1853920	7/26/2009	U	LI - Operational Leak	Level 2	Level 3a	During 4 Crude S/D transition to 5 Tar line, the line was overpressured and blew a gasket at #1 pump	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#1 Pump Station		
1859678	10/1/2009	U	LI - Operational Leak	Level 1	Level 1	GPS operator noticed a flange leak on the 10.2 line at #1 pump station during his rounds. A block v	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#1 Pump Station		
1876291	8/2/2009	U	LI - Equipment Failure	Level 1	Level 1	While the SDA was flushing cutter down the 10" Tar line, operators found the mechanical seal on P-2 h	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#1 Pump Station		
1922813	9/11/2010	U	LI - First Aid	Level 1	Level 1	The 3072 drop line was being taken out of service for replacement of a spool required by an inspecti	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#17 Pump Station		
1859638	10/1/2009	U	LI - Release	Level 1	Level 3a	On October 1, an A entry work order was written to clean the two screens on the Butane 111 line.	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#17 Pump Station		
1902330	4/20/2010	U	LI - Equipment Damage	Level 1	Level 2	The machinist was throwing wood into the back of his truck to take it to a dumpster. One of the pile	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21 Pump Station		
1848233	9/27/2009	U	LI - First Aid	Level 1	Level 1	T&S Operator experienced minor discomfort between shoulder blades while opening a 4" Gate valve at 2	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21 Pump Station		
1963873	6/26/2010	U	LI - Operational Leak	Level 1	Level 1	TOP INVESTIGATION-21 PUMP STATION BAPL PSV LIFTED-T-3189 (RUL-Regular Unleaded Gasoline) was sent	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21 Pump Station		
1840298	7/7/2009	U	LI - Equipment Failure	Level 1	Level 2	TOP INVESTIGATION-P-2 TRANSFER INCIDENT-Toluene for an aviation gas blend was being pumped from T-	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21 Pump Station		
1840298	7/7/2009	U	LI - Operational Leak	Level 1	Level 2	TOP INVESTIGATION-P-2 TRANSFER INCIDENT-Toluene for an aviation gas blend was being pumped from T-	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21 Pump Station		
1840298	7/7/2009	U	LI - First Aid	Level 1	Level 2	TOP INVESTIGATION-P-2 TRANSFER INCIDENT-Toluene for an aviation gas blend was being pumped from T-	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21 Pump Station		
2034290	9/22/2010	NLI	NU - Spill	No Level Selected	Level 1	Leak coming out of the ground at P-2 discharge at 21 FTS. Leaking out of a crack in the concrete int	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#21A Pump Station		
1889662	4/1/2010	U	LI - Incorrect Product	Level 1	Level 1	Operator incorrectly set RUL on KM 10(PUL) which should have been put on KM 2. Investigation reveals	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#24 Pump Station		
1916503	5/5/2010	U	LI - First Aid	Level 1	Level 2	Two mechanics were installing a control valve at 24 pump station. One of the mechanics felt a sharp	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#24 Pump Station		
1818678	9/2/2009	U	LI - Operational Leak	Level 1	Level 1	OIL SPILL FROM LEAKING FLANGE	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1818678	9/2/2009	U	LI - Equipment Failure	Level 1	Level 1	OIL SPILL FROM LEAKING FLANGE	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1823583	2/12/2010	U	LI - Business Process	Level 1	Level 1	MISMANIPULO OF SHIPS DISCHARGE AT BOOSTER PUMP SPLITS TKN IMPORT TO TKG TANK	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1892458	4/8/2010	U	LI - Spill	Level 1	Level 1	TOP INVESTIGATION-TK 1454 CONDUCTIVITY IMPROVER ISSUES-On April 6th, 2010, TK-1454 Conductivity im	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
2034241	9/22/2010	U	LI - MVC - Contractor	Level 1	Level 1	The second concrete truck of the day had gone through Gate #1 and was waiting outside the first TWIC	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1850815	9/28/2009	U	LI - Release	Level 1	Level 1	TOP INVESTIGATION-LINE LEAK AT 7 PUMP STATION	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1859638	8/10/2009	U	LI - First Aid	Level 1	Level 1	TOP INVESTIGATION-Employee Sustains Second Degree Burns-Three employees were commissioning a newly	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1959472	8/18/2009	U	LI - Operational Leak	Level 1	Level 1	Employee while making rounds found a bad leak on 1506 tank mixer. Employee was able to shutdown mix	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1959472	8/18/2009	U	LI - Equipment Failure	Level 1	Level 1	Employee while making rounds found a bad leak on 1506 tank mixer. Employee was able to shutdown mix	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1858455	9/2/2009	U	LI - First Aid	Level 1	Level 1	While performing operating task at 7 pump station employee was stung by a bee. He immediately report	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#27 Pump Station		
1858455	9/2/2009	U	LI - Contractor First Aid	Level 1	Level 1	Contract employee finished his job and was carrying his tool bag down a flight of stairs. When he go	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#28 Pump Station		
1858437	7/28/2009	NLI	NU - Equipment Damage	No Level Selected	Level 2	Crew was in the process of removing an old electrical switch gear from the 8 pump station area. The	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#28 Pump Station		
1858437	7/28/2009	NLI	NU - Contractor Injury	No Level Selected	Level 2	Crew was in the process of removing an old electrical switch gear from the 8 pump station area. The	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#28 Pump Station		
1916159	8/14/2009	U	LI - First Aid	Level 1	Level 1	A new sampling system is being installed at the crude injection pumps at 6 pump station. When the op	Richmond Refinery	Blending & Shipping (Rich)	Pump Stations (Rich)	#28 Pump Station		
1999564	8/9/2010	U	LI - Operational Leak	Level 1	Level 1	At 0600 a flange leak was found on the discharge line from the RUL gasoline tank T-5 to the truck ra	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Loading Racks		
1810760	1/28/2010	NLI	NU - Equipment Damage	No Level Selected	Level 1	A bolt was not tight on a flange just upstream of the pump P-2801. The line was in service for a yea	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Loading Racks		
1830363	4/8/2010	U	LI - Operational Leak	Level 1	Level 1	TOP INVESTIGATION-PRESSURE RELIEF DEVICE PT-113 FAILURE-Pressure Relief Device, PRD TT-113, failed	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Loading Racks		
2014662	4/1/2010	U	LI - Equipment Failure	Level 2	Level 2	P-5 is a water draw pump for T-3071, T-1887, T-1688, T-990, T-991, and T-992 that pumps to slop oil	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1861050	10/10/2009	NLI	NU - Lessons Learned	No Level Selected	Level 2	T-3213 roof was reported to be clogged 5' to one side. Subsequent inspection showed water in the pon	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1707560	1/15/2009	U	LI - Plant Run Out/Slow Down	Level 1	Level 1	T-3214 AVGAS PRODUCT UNAVAILABLE TO THE TRUCK RACKS.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1866679	10/7/2009	U	LI - Equipment Failure	Level 1	Level 1	Leak on fresh water line which supplies the poly tank that feeds the compressor motors. This fresh w	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1861221	2/25/2010	U	LI - Contractor First Aid	Level 1	Level 1	2 contractors were clearing fire breaks for welding on 9 locations in main Tank Field. This area is	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1752418	12/8/2009	U	LI - Equipment Damage	Level 1	Level 1	Roof beam was bent when operator of crane applied excessive tension on beam	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1825211	9/9/2009	U	LI - First Aid	Level 1	Level 1	EE stung by bee or yellow jacket while working at T-3134. Was seen by Clinic and returned to work w	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1965180	6/26/2010	U	LI - Product Quality (Int)	Level 2	Level 2	T-3185 failed off-test with the end point on the bottom at 575 F verse the maximum specification of	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1816289	2/5/2010	U	LI - First Aid	Level 1	Level 2	TOP INVESTIGATION-T3074 FOAM SEAL FIRE-On February 5th, 2010, at tank T-3074, an "incident" stage	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
2011452	8/23/2010	U	LI - Product Quality (Int)	Level 1	Level 1	Jet production was inadvertently switched "Off-Test" to T-1518 @ 2255Hrs.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1954989	8/10/2009	U	LI - Equipment Damage	Level 1	Level 1	A Surgeon employee was transporting four empty 55 gallon drums from T-3105 using a pickup truck, one	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1789128	1/16/2010	U	LI - Spill	Level 2	Level 2	AVGAS SPILL TO LAND - On Monday, January 11th, work to modify the existing Avgas water draw line beg	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1831718	2/19/2010	U	LI - First Aid	Level 1	Level 1	Employee felt a sharp pain in the upper back while closing a valve at 3214 tank. Employee reported	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1834348	9/16/2009	U	LI - Equipment Failure	Level 3a	Level 3a	UNSCHEDED SHUTDOWN OF T1451 DUE TO LEAKS.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1922957	5/1/2010	U	LI - First Aid	Level 1	Level 2	Company employee injured left index finger while sliding a pin into the counterweight of a 100 ton c	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1803447	8/24/2009	U	LI - Operational Leak	Level 1	Level 1	HYDROCARBON LEAK DUE TO EXTERNAL CORROSION.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1816286	2/5/2010	U	LI - MVC - Company	Level 1	Level 1	While leaving the T-3076 parking area, the operator was performing a three point turn and backed into	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1843359	9/23/2009	NLI	NU - Operational Leak	No Level Selected	Level 1	HYDROCARBON LEAK DUE TO EXTERNAL CORROSION	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1826371	2/11/2010	NLI	NU - Water	No Level Selected	Level 1	TOP INVESTIGATION-Wrong Dye Put In T-3074-Chevron Tank Engineer sent an email to a Contract Tank I	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1870755	10/12/2009	NLI	NU - MVC - Contractor	No Level Selected	Level 1	While delivering tank cleaning gear to Tank 3074 jobsite, the rear passenger side bumper of a contr	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1707560	1/15/2009	U	LI - Product Unavailable	Level 1	Level 1	T-3214 AVGAS PRODUCT UNAVAILABLE TO THE TRUCK RACKS.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Main Tank Field		
1839458	2/22/2010	U	LI - Contractor First Aid	Level 1	Level 1	Surveyor was exposed to poison oak on Ridge road when he was staking fence line. Surveyor was seen -	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
1841285	7/7/2009	U	LI - Equipment Failure	Level 1	Level 1	The 8" Petrolite Line from 8 PS Clean Water Sump & 7 Basin developed a leak near old T-225 (oos) ab	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
1717790	1/11/4/2009	U	LI - Plant Run Out/Slow Down	Level 1	Level 1	Planned feed rate of 500 bph from T-3186 to RLOP is not being met.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
1750929	12/7/2009	U	LI - Abnormal Supply Occurrence	Level 1	Level 1	On the week of 11/23/2009, the Oil Planning Group was advertising the Fuel Oil production at Richmo	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
1788474	1/15/2010	U	LI - Release	Level 1	Level 1	During the initial fill of the blue dye tote at the new Avgas loading rack, a flange leak was discov	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
1788474	1/15/2010	U	LI - Preferred Contractor - Spill	Level 1	Level 1	During the initial fill of the blue dye tote at the new Avgas loading rack, a flange leak was discov	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
1874324	10/13/2009	U	LI - Equipment Failure	Level 1	Level 1	Concave engine was scheduled two days down time to carbon blast. Started Monday Oct 12th and supposed	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Other (T&B)		
2010577	8/23/2010	U	LI - Preferred Contractor - MVC	Level 1	Level 1	An operator driving a pickup truck and a contractor driving a pickup truck collided. Chevron Emergen	Richmond Refinery	Blending & Shipping (Rich)	Transfer			

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
1648004	9/27/2009	LI	LI - Spill	Level 1	Level 1	P-10 in 15 pump station blew a seal while getting ready to flush the pump casing with lighter stock	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1648004	9/27/2009	LI	LI - Equipment Failure	Level 1	Level 1	P-10 in 15 pump station blew a seal while getting ready to flush the pump casing with lighter stock	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1671851	3/20/2010	LI	LI - Equipment Damage	Level 1	Level 1	While driving on Prodest Rd in the Pole Yard tank field the EE slowly drove over a 3" x 12" log. The	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1913326	4/29/2010	LI	LI - Operational Leak	Level 2	Level 2	Operator was making his rounds when discovered oil in one of the tank drains. He call his head oper	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1911043	2/1/2010	LI	LI - MISC - Company	Level 1	Level 1	At approximately 20:00 on 2/1/2010 an operator was driving away from T-3220 and passed some branche	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1705001	1/16/2009	LI	LI - First Aid	Level 1	Level 1	Walking down steps to sample tank 3162, employee fell and scraped his knee. The employee had one ha	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1729917	1/17/2009	LI	LI - Equipment Failure	Level 1	Level 1	During a bi-annual inspection of the roof seals on T-3197 the secondary seal was found to have a 40%	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1634237	2/5/2010	LI	LI - Contractor Medical w/o lost time	Level 1	Level 2	Poison Oak - Contract Employee was performing pipe support inspections/evaluations on Feb 2nd & 3rd	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1601669	7/26/2010	LI	LI - Equipment Failure	Level 1	Level 1	RLOP, switched to a new blend by setting the first in product to the 471 line (off-test routing to T	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1601669	7/26/2010	LI	LI - Equipment Failure	Level 1	Level 1	CB&I EE Moving Man Lift out of tank 3222 the man lift came to close to the edge of the opening and	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Pole Yard Tank Field		
1675378	10/15/2009	LI	LI - Equipment Damage	Level 1	Level 1	TOP INVESTIGATION-CONTRACTORS SPRAYED WITH WATER/CRUDE OIL-Whi is dismantling the last 5 to 6	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1623469	9/8/2009	LI	LI - Spill	Level 1	Level 1	During 11/12/09 worker felt no discomfort. After work contractor looked in a mirror and noticed redn	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1716568	11/13/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	An ABS hose connected to a guzzler vacuum truck breaks while in service guzzling tank bottom solids	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1643129	9/23/2009	LI	LI - Spill	Level 1	Level 2	Vacuum truck spills ~10 gallons of crude oil/crude mix to the soil at 3105 tank. While vacuuming a	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1650310	9/28/2009	LI	LI - Contractor First Aid	Level 1	Level 2	While gauging portable frac tank at T3105 contractor employee reported not feeling well, possible he	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1618998	9/2/2009	LI	LI - Operational Leak	Level 1	Level 2	4 1/2" brass rainforient valve bonnet separated from valve body and went approx 10' up in the air.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1554105	7/17/2009	LI	LI - Contractor First Aid	Level 1	Level 1	Employee was getting his hose back from tank 3105; about eight lengths were strung together. He pul	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1673526	10/14/2009	LI	LI - Release	Level 1	Level 1	The initial fill of T3105 started on Jan 10, 2010 0800H with an initial flow of 1,000 BPH crude oil	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1784111	1/11/2010	LI	LI - Spill	Level 1	Level 2	At T3105 processing site a centrifuge catch tank was overfilled. Less than half a barrel was spilled t	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1580430	8/3/2009	LI	LI - Spill	Level 2	Level 2	TAPROOT while cleaning out a portable Frac tank the end hatches were open. The tank is tied into comm	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1580558	8/3/2009	LI	LI - Spill	Level 1	Level 1	While exiting a van from the drivers seat the PPS employee hooked his foot on exposed wires causing	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1625422	9/9/2009	LI	LI - Contractor First Aid	Level 1	Level 1	At approximately 06:32hrs 4 Crude unit reported a spike in the AGAR probe (7.1%) indicating water in	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1632109	2/20/2010	LI	LI - Product Unavailable	Level 1	Level 1	At approximately 06:32hrs 4 Crude unit reported a spike in the AGAR probe (7.1%) indicating water in	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1632109	2/20/2010	LI	LI - Business Interruption	Level 1	Level 1	At approximately 06:32hrs 4 Crude unit reported a spike in the AGAR probe (7.1%) indicating water in	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1745437	12/3/2009	NLI	NLI - Spill	No Level Selected	Level 1	SPILL TO DIRT WATER AND TRACE AMOUNT OF OIL.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1745437	12/3/2009	NLI	NLI - Water	No Level Selected	Level 1	SPILL TO DIRT WATER AND TRACE AMOUNT OF OIL.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	Quarry Tank Field		
1788202	1/15/2010	LI	LI - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-VALVE ISSUES ON 3105ST SAMPLING BOX-An Oper. was sprayed while putting a sample fr	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1831929	2/19/2010	LI	LI - First Aid	Level 1	Level 1	Plant Protection EE was ascending a set of wooden stairs enroute to sign a hotwork permit. One of 1	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1963676	6/25/2010	LI	LI - Product Quality (Int)	Level 1	Level 1	Approximately 7,500bbls of T-3163 (10DN) was transferred to the Richmond Lube Plant (RLP) prior to a	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1739127	11/24/2009	LI	LI - Contractor First Aid	Level 1	Level 2	TOP INVESTIGATION-POLE STRIKES CONTRACTOR-On Nov 24, 2009 an electrical contractor foreman and em	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1929048	5/18/2010	LI	LI - Non-Industrial	Level 1	Level 1	EE felt ill. Transported to hospital for evaluation.	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1762488	12/14/2009	LI	LI - Product Unavailable	Level 1	Level 1	T-1292 diesel tank mixer was found running on 1st rounds after tank had been finalized with Certificate	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1929672	5/16/2010	LI	LI - Business Interruption	Level 1	Level 1	T-1688 gravity could not meet the limit set at .5 difference between top and bottom. Tank was sche	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1973611	7/30/2009	LI	LI - Fire/Explosion	Level 1	Level 2	Contract company was dismantling future inside of tank with torch. A small pocket of product was tra	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1795080	1/21/2010	LI	LI - Non-Compliance Government Requirement	Level 1	Level 1	Potential Tite V deviation: ACGI inspections were missed on TK-3189 Mixer seal. Our initial invas	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1996001	8/2/2010	LI	LI - Spill	Level 1	Level 1	T-1966 sample system's drop line to the loading racks tank was found leaking to the soil. A bucket	Richmond Refinery	Blending & Shipping (Rich)	Transfer & Blending (Rich)	SP Hill Tank Field		
1592798	8/18/2009	LI	LI - Product Contamination (Ext)	Level 1	Level 1	While loading 600R tube oil on a vessel it was discovered that slight traces of water was discovered	Richmond Refinery	Blending & Shipping (Rich)	Vessels (Rich)	Other Vessels		
1643664	9/23/2009	NLI	NLI - General Liability	No Level Selected	Level 1	Contractor office as was wearing high heels on a plankd board surface and as stepped into crack be	Richmond Refinery	Capital Projects	214 Main			
1541198	7/7/2009	LI	LI - MISC - Contractor	Level 1	Level 1	Contract safety operator was driving the safety operator truck from the FLUOR test (65 asphalt plant	Richmond Refinery	Capital Projects	214 Main			
1598270	8/20/2009	LI	LI - MISC - Contractor	Level 1	Level 2	A Fluor-contracted bus (86601) scraped the front right bumper area of a parked, Fluor-leased pickup	Richmond Refinery	Capital Projects	Other			
1926365	5/1/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Two (Times) contractor employees lifting a 8" pipe 7.5 ft. long into the bed of a pick-up truck. The	Richmond Refinery	Capital Projects	Other			
1729904	11/23/2009	LI	LI - Contractor First Aid	Level 1	Level 1	While cleaning up at the end of the day the worker was putting away a ladder and checking out the wo	Richmond Refinery	Capital Projects	Other			
1964239	4/20/2010	LI	LI - MISC - Personal Use	Level 1	Level 1	Upon departing work in Company parking lot, EE was backing personal vehicle out of parking locatio	Richmond Refinery	Capital Projects	Other			
1884347	12/31/2009	LI	LI - Business Process	Level 1	Level 1	The local capital budget (individual projects < \$2 MM) is a component of the overall firm item < \$2 M	Richmond Refinery	Capital Projects	Other			
2035444	9/23/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Contractor employee was walking inside trailer/building on her way home for the day. She felt a po	Richmond Refinery	Cracking (Rich)	Cracking General (Rich)	Cracking Area Control Center		
1929615	5/21/2010	LI	LI - Non-Industrial	Level 1	Level 1	Employee reported to STL office and requested to be seen by EMT's. Employee stated they started to f	Richmond Refinery	Cracking (Rich)	Cracking General (Rich)	Other (CABU)		
1547624	7/13/2009	LI	LI - First Aid	Level 1	Level 1	EE was working at the north yard weld bay. While lifting a valve and pipe, EE felt small sharp pa	Richmond Refinery	Cracking (Rich)	Cracking General (Rich)	Other (CABU)		
1842405	2/23/2010	LI	LI - Business Interruption	Level 1	Level 2	On 2/23/10, the refinery experienced a power dip from Sebrante Line 1 line going to the open positio	Richmond Refinery	Cracking (Rich)	Cracking General (Rich)	Other (CABU)		
1623578	8/8/2009	LI	LI - Abnormal Freight	Level 1	Level 1	Cracking Area Lab	Richmond Refinery	Cracking (Rich)	Cracking General (Rich)	Other (CABU)		
1595109	10/5/2009	NLI	NLI - Paperwork Incomplete/Not Sent	No Level Selected	Level 1	CVX electrical crew performed the light installation and receptacle modifications at the Cracking La	Richmond Refinery	Cracking (Rich)	Cracking General (Rich)	Other (CABU)		
1972680	7/4/2010	LI	LI - Equipment Damage	Level 1	Level 1	Railservo locomotive 201 was heading to track 209 to get a railcar being spotted to the LPG racks fo	Richmond Refinery	Cracking (Rich)	FCC (Rich)	#3HS		
1851531	3/2/2010	NLI	NLI - Permit Exceedance	No Level Selected	Level 1	The V-475 fuel gas drum H2S 24 hour average almost reached it's environmental limit of 30 ppm. Sink	Richmond Refinery	Cracking (Rich)	FCC (Rich)	#3HS		
1660507	10/22/2009	LI	LI - Permit Exceedance	Level 1	Level 1	The level in the DEA Reelwater, C-220, dropped off from 62% down to 12%. With the loss of DEA in	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Caustic Treating		
1890513	4/5/2010	LI	LI - First Aid	Level 1	Level 1	While checking P-281 for a VOC seal leak, an operator was sprayed with water used as seal flush for	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
1970199	6/30/2010	LI	LI - Equipment Failure	Level 1	Level 1	The electrical crew performed a project to relocate MP-711, the FCC Cooling Water Pump, from TX-146	Richmond Refinery	Cracking (Rich)	FCC (Rich)	FCCSRU CW7		
1579378	7/27/2009	LI	LI - Equipment Failure	Level 1	Level 1	During the commissioning of the TX-116/117 Power Control Center a component known as Microversa tri	Richmond Refinery	Cracking (Rich)	FCC (Rich)	FCCSRU CW7		
1970199	6/30/2010	LI	LI - Business Interruption	Level 1	Level 1	The electrical crew performed a project to relocate MP-711, the FCC Cooling Water Pump, from TX-146	Richmond Refinery	Cracking (Rich)	FCC (Rich)	FCCSRU CW7		
1873107	10/6/2009	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	MP-133 - ONG VOC violation at coupling end seal, 1280 ppm, found in morning (am) by VOC Inspector, V	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
2028112	9/15/2010	LI	LI - Contractor First Aid	Level 1	Level 1	While removing a blind on the suction flange of P-148A two contact EE's were sprayed with Gasoline/L	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
1816148	1/1/2010	LI	LI - Equipment Damage	Level 1	Level 1	After several days of running P-112 to circulate recovered oil, The outside operator noticed it appe	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
1744468	11/30/2009	NLI	NLI - Operational Leak	No Level Selected	Level 1	Employees walking by FCC pipe trench north of C-140 noticed some water flow into the trench that sho	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
2069104	8/21/2010	NLI	NLI - General Liability	No Level Selected	Level 1	During start up E-142A (C-140 Deethanizer reboiler) steam safety lifted to relief system. This volun	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
2069159	8/20/2010	NLI	NLI - Incorrect Product	No Level Selected	Level 1	At approximately 9:30 pm on Aug 20, 2010 the field machinist discovered the case gasket O.D for P-12	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
1597554	6/22/2010	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	FCC V-133 wet gas compressor interstage vessel. While switching from P-133 to P-133A to LOTG P-133 f	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
1941533	5/31/2010	NLI	NLI - Employee Injury	No Level Selected	Level 1	During FCC start-up outside operators noticed a seal leak on P-123. Operators stopped the pump then	Richmond Refinery	Cracking (Rich)	FCC (Rich)	NGRU		
1963102	8/17/2010	LI	LI - Non-Compliance Company Policy	Level 1	Level 1	While doing rounds in the FCC an Operator noticed a contractor sharpening a tool with a grinder caus	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
2015045	8/27/2010	LI	LI - Notice of Violation	Level 1	Level 1	Opacity meter failure on FCC stack. 1) Why did the opacity meter fail? The laser eye was not point	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1763882	12/14/2009	LI	LI - Equipment Failure	Level 1	Level 1	Loss of Signal from the FCC CEMS SO2 Analyzer on Monday 12/14/09 1:00 PM. On Tuesday 12/15/09 The an	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1842163	2/25/2010	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	The C-90 (fractionator) reflux control valve (52FC105) was partially bypassed for maintenance, the u	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1842363	2/25/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	The C-90 (fractionator) reflux control valve (52FC105) was partially bypassed for maintenance, the u	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1802720	1/27/2010	NLI	NLI - Business Interruption	No Level Selected	Level 1	While switching pump TP-118A online for the spare pump run, the MCO stripper C-111 flow out was lost	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1810521	2/1/2010	NLI	NLI - Health & Food	No Level Selected	Level 1	A BRAND EMPLOYEE CONSUMED SOME HOT SPICEYCHICKEN WINGS AND FRIES, FROM THE LUNCH	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1934125	5/13/2010	NLI	NLI - Non Compliance - Air	No Level Selected	Level 1	The FCC got pretty close to exceeding the ESP parametric limits on secondary current.	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1976766	6/29/2010	NLI	NLI - Non Compliance	No Level Selected	Level 1	Contract employee did not sign in to FCC control house because they thought they were told by a Chev	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
2040347	9/29/2010	NLI	NLI - Non Compliance - Air	No Level Selected	Level 1	FCC flare: Brief flare activity due to high flow from Alky relief drum V-734. Source being investiga	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
2041934	9/29/2010	LI	LI - Fire/Explosion	Level 1	Level 1	FCC flare: fire on piping at side of flare during flare operation. Flames were observed at vertical	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Other (FCC)		
1902545	4/17/2010	LI	LI - Permit Exceedance	Level 1	Level 1	After placing the booster pump in service for E-171 (Gas Splitter Overhead Condenser) the gas tesedn	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
1931565	5/20/2010	LI	LI - Plant Run Out/Slow Down	Level 2	Level 2	Loss of seal on P-172A (FCC Frac S/C pump to JHT)	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
1941768	5/31/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	During restart of FCC unit after MABT S/O, there was a flare event (Not recordable quantity or Conse	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
1799561	1/17/2010	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	C-180 is a debutanizer in the South GRU that during normal operation mirrors C-160 (same service).	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
2010562	8/23/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	Flaring event at V-731A and V-732A when C-180 Debutanizer was being put in service.	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
1956381	5/26/2010	LI	LI - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-P-257A SEAL FAILURE-On June 28, 2010, P-257A (FCC gasoline to tankage pump) se	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
1636142	9/14/2009	NLI	NLI - Non Compliance	No Level Selected	Level 1	in the FCC a TR-2 was dumping and charging V-262 Propane treater. While dumping to the holding vesse	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
2039587	9/15/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	The safety, PSV FCC-163, located off of the bottom of C-150 Debutanizer opened. This immediate unres	Richmond Refinery	Cracking (Rich)	FCC (Rich)	SGRU		
1770403	12/23/2009	LI	LI - First Aid	Level 1	Level 1	While working on V-60 the Journeyman Mech sent Trainee to relieve tools from the work truck be'low	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Stridum		
1036503	8/16/2010	LI	LI - Operational Leak	Level 3a	Level 3a	On nights/shift Monday August 16, 2010 during their routine round operations noticed oil on the ground	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Structure		
1940649	5/30/2010	LI	LI - Equipment/Unit Trip	Level 3a	Level 3a	The Richmond FCC experienced an emergency shutdown, on 5/30/10 at 3:35 am, due to a high vibration D	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Structure		
2044421	9/30/2010	LI	LI - Fire/Explosion	Level 1								

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
1924685	5/12/2010	LI	LI - First Aid	Level 1	Level 1	BRAND EE WAS WORKING IN THE FCC UNIT. CREW FINISHED LOADING THE FLATBED TRUCK WITH NINE	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Utility Area		
1923165	2/1/2010	NLI	NLI - Non Compliance	No Level Selected	Level 1	At the start of nightshift 11/feb/2010 at about 17:10 the CBO noticed that F-300 FCC stack CEMS was	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Utility Area		
1993412	4/8/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	850 start-up steam to the stack was down for maintenance. Upon returning the steam line for service,	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Utility Area		
2001409	8/7/2010	NLI	NLI - Business Interruption	No Level Selected	Level 1	TK-303, FCC yard air compressor, tripped off line on 8/7/10 at 00:15. K-2600 (Hydro) was immediate	Richmond Refinery	Cracking (Rich)	FCC (Rich)	Utility Area		
1736734	1/12/2009	LI	LI - First Aid	Level 1	Level 1	TOP INVESTIGATION-OPERATOR SPRAYED WITH ACID-Operator was pulling daily acid samples. At around 0	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Acid Storage & Distribution Facility		
1829264	7/15/2009	LI	LI - Business Interruption	Level 1	Level 1	Loss of efficiency in Alky CWT due to plugging. Lack of chemical injection caused excessive systemat	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky CWT		
1833634	9/16/2009	LI	LI - Permit Exceedance	Level 1	Level 1	Re-routing C-1320 bottoms from C-400 to C-1020 as per the sulfon used Butamer Plant shutdown procedu	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Distillation		
2014122	8/24/2010	LI	LI - General Liability	Level 1	Level 1	During startup of the Poly Plant there was a significant amount of C3's routed to the Alky Plant. FI	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Distillation		
1848317	2/25/2010	LI	LI - Equipment Failure	Level 2	Level 2	Unit to E-1414 heat exchangers is 100% plugged. The plugged line requires bypassing the heat exchan	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Distillation		
1743063	1/10/2010	LI	LI - Operational Leak	Level 1	Level 1	V-1441 is a water wash drum in the Alky plant that recirculates alkaline water to neutralize acidic	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Distillation		
1745527	1/23/2009	LI	LI - Spill	Level 1	Level 2	P-1481 developed a leak that split acid into it's containment basin. The containment basin is a tem	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1830540	2/18/2010	LI	LI - Equipment Failure	Level 1	Level 1	A plug blew off the 150# condensate line in the ALKY GRU, causing hot condensate to flow out of the	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1869758	4/4/2010	LI	LI - Equipment Failure	Level 1	Level 1	While walking through the Alky GRU Investigating Loud hammering in the plant, a Valve handwheel fel	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1861012	10/3/2009	LI	LI - Plant Run Out/Slow Down	Level 2	Level 2	Acid Emulsion of Alkylation Plant	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
2019882	8/30/2009	NLI	NLI - Business Interruption	No Level Selected	Level 1	Missed scope input freeze data to perform typical shutdown related inspection and service for the	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1869980	3/15/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	While moving the plant into feed segregation bypass the tail end acid strengths were at 89%. Best pr	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1869980	3/15/2010	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	While moving the plant into feed segregation bypass the tail end acid strengths were at 89%. Best pr	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1869980	3/15/2010	NLI	NLI - Product Quality (In)	No Level Selected	Level 1	While moving the plant into feed segregation bypass the tail end acid strengths were at 89%. Best pr	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1869980	3/15/2010	NLI	NLI - Operational Leak	No Level Selected	Level 1	While placing the F contactor in service, the gauge glass needed to be flushed out to properly see i	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1864887	1/16/2009	NLI	NLI - Agency Warning	No Level Selected	Level 1	V-475 fuel gas 24 hr average for H2S	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Alky Unit		
1991828	7/28/2010	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	While in the process of putting feed in the Butamer plant, Reactor R1310A saw 2 high temperature ala	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Butamer Unit		
1793202	1/20/2010	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	At 08:43 on 7/27/2009, Butamer Plant Butane Charge Pump P-1302A Shut Down, causing plant upset and t	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Butamer Unit		
1965573	7/27/2009	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	EE mounted a bicycle outside of the LPG racks control house. The EE proceeded to peddle the bike gel	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks Control House		
1893838	10/28/2009	LI	LI - First Aid	Level 1	Level 1	On Dayshift, Tuesday March 23rd, 2010, Operators used their Slip Work Authority when they noticed	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1879324	3/23/2010	LI	LI - Business Interruption	Level 1	Level 1	Field Operator felt discomfort in their eye. Notified HO and STL. CFD responded. CFD flushed eye, no	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1849886	6/10/2010	LI	LI - First Aid	Level 1	Level 1	On 3/25/10, a full railcar (JTLX 952304) carrying C4 olefins was mistakenly sent out of the refinery	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1903988	3/25/2010	NLI	NLI - Insect/Vol	No Level Selected	Level 1	Railcars spotted to LPG racks were input into Mapper using wrong track and spot numbers. This cau	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1962343	6/23/2010	NLI	NLI - Business Process	No Level Selected	Level 1	Railcar SRX33699 was reported as having a small leak under the dome that was causing a mercaptan l	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1727665	11/19/2009	NLI	NLI - Release	No Level Selected	Level 2	On Nov. 10th at 11:45 PM the LPG racks operators released a empty Conoco railcar CATTX 63075 that had	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1716434	11/12/2009	LI	LI - Release	Level 1	Level 1	Odor complaint was called into Plant Protection and determined from wind direction to be coming fro	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1870898	3/18/2010	NLI	NLI - Release	No Level Selected	Level 1	LPG Railcar Racks: Threaded plug failed on railcar loading arm swivel joint while grease was being l	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1926525	5/15/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Railcars spotted to LPG racks were input into Mapper using wrong track and spot numbers. This cau	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Racks		
1962343	6/23/2010	NLI	NLI - Paperwork Incomplete/Not Sent	No Level Selected	Level 1	LPG Racks - T-3050 vent opened to relief causing flare activity during maintenance to calibrate DP c	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1918767	5/5/2010	LI	LI - Permit Exceedance	Level 1	Level 1	CVX Employee was climbing into T-3066 to perform inspections and felt a pop and discomfort in the ri	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1848728	8/12/2009	LI	LI - First Aid	Level 1	Level 1	C4 Olefin (T3212) inadvertently routed to Blend T-3071 which called for C5 Olefin (T-3211). P-772 (Ole	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1869101	10/11/2009	LI	LI - Product Quality (In)	Level 1	Level 1	C4 Olefin (T3212) inadvertently routed to Blend T-3071 which called for C5 Olefin (T-3211). P-772 (Ole	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1669101	10/11/2009	LI	LI - Insect/Vol	Level 1	Level 1	Overpressuring T-3050 due to a routine rail car loading activity. T-3050 pressure increased above se	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
2016787	8/15/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	17:00 RSL was notified of odor complaint by D&R personnel and also BAAQMD report of odor complaint o	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1740358	11/30/2009	NLI	NLI - Air	No Level Selected	Level 1	During routine piping installation at the LPG loading racks it was noticed that 4 sets of flanges ha	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1762344	12/16/2009	LI	LI - Paperwork Incomplete/Not Sent	Level 1	Level 1	T-3208 Sales propane sphere off-test for IC4 content. Sales propane IC4 content should be less than	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
2040199	9/28/2010	NLI	NLI - Product Quality (In)	No Level Selected	Level 1	While loading a LPG Truck, some LPG was sent to the relief system via a blowdown valve. The flow ra	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1779902	1/5/2010	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	The field operator was off loading rail cars and mis-manifolled C4 Olefins into T-3206 (Isobutenes).	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1908325	4/26/2010	NLI	NLI - Product Contamination (In)	No Level Selected	Level 1	A PTT truck driver tripped and scraped his knee. The driver parked his truck on spot 5 and 5 of the	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
1557829	7/21/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	Prepares in T3208 off test for residue.	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	LPG Spheres & Truck racks		
2014336	8/25/2010	NLI	NLI - Product Quality (In)	No Level Selected	Level 1	18 Plant, Cogen, and FCG were all affected by poor anhydrous ammonia quality coming from the NH3 bul	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	NH3 Bullets		
1849905	3/28/2010	NLI	NLI - Product Contamination (In)	No Level Selected	Level 2	18 Plant, Cogen, and FCG were all affected by poor anhydrous ammonia quality coming from the NH3 bul	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	NH3 Bullets		
1849806	3/28/2010	NLI	NLI - Product Quality (In)	No Level Selected	Level 2	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1733108	11/17/2009	LI	LI - Permit Exceedance	Level 1	Level 1	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1733108	11/17/2009	LI	LI - Operational Leak	Level 1	Level 1	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1733108	11/17/2009	LI	LI - Loss of Containment (LOC) Corp	Level 1	Level 1	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1733108	11/17/2009	LI	LI - Inadvertent Release of Hazardous Vapor	Level 1	Level 1	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1733108	11/17/2009	LI	LI - Equipment Failure	Level 1	Level 1	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1774803	1/4/2010	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	A false environmental alert/concern was triggered by erroneous PI calc for V-475 SHR and 24HR rollin	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1942096	5/31/2010	NLI	NLI - Non Compliance - Air	No Level Selected	Level 1	The Fuel gas BTU analyzer of V-475 failed on nightshift. As the analyzer technician began to work on	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1816455	2/5/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	While depressuring V-496 A&B (C3 Driers) in the YDIB, the flow to the relief header increased enough	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
2027553	9/14/2010	NLI	NLI - Permit Exceedance	No Level Selected	Level 1	Railcar locomotive 201 was pulling 4 loaded and 2 empty LPG cars out of the loading rack when the	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1944036	6/2/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	GHG fuel gas data loss from V-475B - CARB regulations require us to analyze the fuel gas mix drums i	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1845453	7/31/2009	NLI	NLI - Non Compliance - Air	No Level Selected	Level 1	On or about the morning of Nov 17th, area operators on the LPG area noticed a light olefin odor in a	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Other (LPG/ALKY)		
1733108	11/17/2009	LI	LI - Business Interruption	Level 1	Level 1	On the morning of Mar 05, a Nalco Representative along with the Poly plant operator noticed the blea	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly CWT		
1854419	3/5/2010	LI	LI - Spill	Level 1	Level 1	Oil was discovered in the Poly Plant CWT basin by Nalco rep. Operations traced the source of the o	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
2009096	8/20/2010	LI	LI - Operational Leak	Level 2	Level 2	Operators shutdown Poly Reactor Y-020 B loop when P-621B experienced a seal failure. The seal had be	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
2020110	9/1/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	TAPROOT INVESTIGATION-ALSO REFERENCE LI 1756374--	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1756575	12/12/2009	LI	LI - Operational Leak	Level 3a	Level 3a	TAPROOT INVESTIGATION-ALSO REFERENCE LI 1756374--	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1756575	12/12/2009	LI	LI - Loss of Containment (LOC) Corp	Level 3a	Level 3a	Incident Summary: On 12/12/09 nightshift at abou	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1756575	12/12/2009	LI	LI - Equipment Failure	Level 3a	Level 3a	TAPROOT INVESTIGATION-ALSO REFERENCE LI 1756374--	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1756575	12/12/2009	LI	LI - Business Interruption	Level 3a	Level 3a	TAPROOT INVESTIGATION-ALSO REFERENCE LI 1756374--	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1905437	4/18/2010	LI	LI - Equipment Failure	Level 1	Level 1	Poly Plant Reframer and Pantamer Additive Nalco EEC3050A (isonox) had an unexplained larger than norm	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1727567	11/19/2009	LI	LI - Community Injury	Level 1	Level 2	Outside odor complaint was received and tracked down to bio-reactors. Initially, USE tracked source	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1824090	2/12/2010	LI	LI - Operational Leak	Level 1	Level 1	At the beginning of 2/12/10 nightshift, we received an internal odor complaint of a caustic and/or m	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1915340	5/1/2010	NLI	NLI - Spill	No Level Selected	Level 1	TOP INVESTIGATION-TUBING LEAK-While on daily rounds, an Alky plant operator noticed a leak (a mist	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1756374	12/12/2009	LI	LI - Plant Run Out/Slow Down	Level 2	Level 2	While performing the Quick Test procedure (POLKJ4J) on F-651 in the Poly Plant, the fuel gas chopper	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1756374	12/12/2009	LI	LI - Equipment/Unit Trip	Level 2	Level 2	During normal operation The poly plant operator noticed a leak coming from B loop sample draw line o	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1814556	2/3/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	P-621B (Reactor emulsion pump) low level seal oil alarm activated. Field operator responded to fill	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1759177	12/22/2009	NLI	NLI - Operational Leak	No Level Selected	Level 1	On June 28, 2010, Univar contacted PED to notify the engineer of another shipment of phosphoric acid	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1990732	7/27/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Poly Plant feed was pulled and plant placed on circulation as a result of a loss of reflux to C-65	Richmond Refinery	Cracking (Rich)	LPG/Alky (Rich)	Poly Plant (LPG/ALKY)		
1971567	6/29/2010	NLI	NLI - Abnormal Supply Occurrence	No Level Selected	Level 1	The governor of the rear-end blower for #1 Train (K-2111) failed open causing the blower to overspee	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2100 Plant #1 SRU		
1811167	2/2/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Contract EE after draw filing on a flange, stopped to wipe some sweat from his forehead. He wiped hi	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2100 Plant #1 SRU		
1759340	12/16/2009	LI	LI - Equipment Failure	Level 1	Level 1	After welding the sleeves on P-2110 The Fire watch assigned to monitor job 30 min. after Hot Work has	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2100 Plant #1 SRU		
2021417	9/2/2010	LI	LI - Contractor First Aid	Level 1	Level 2	While descending a scaffold ladder at the C-2150 site, gusts of wind were present and during his desc	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2100 Plant #1 SRU		
2021919	9/5/2010	NLI	NLI - Fire/Explosion	No Level Selected	Level 1	While performing a grinding job, he was stopped, so work could be checked by his QC. he slightly li	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2100 Plant #1 SRU		
2021520	8/27/2010	LI	LI - Contractor First Aid	Level 1	Level 2	Laceration to index finger from grinder. Contract EE was grinding on a socket weld on the steam jac	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2200 Plant #2 SRU		
2024044	9/8/2010	LI	LI - Contractor First Aid	Level 1	Level 1	SRU 2200 plant tripped off line when the main reaction furnace received a low level indication (FSC	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2200 Plant #2 SRU		
1683001	10/21/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	SRU 2200 plant tripped off line when the main reaction furnace received a low level indication (FSC	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2200 Plant #2 SRU		
1683001	10/21/2009	LI	LI - Equipment Failure	Level 1	Level 1	New valves were ordered to replace the sulfur rundown valves during the 2.3RJ shutdown. When the re	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2200 Plant #2 SRU		
1933912	8/15/2009	LI	LI - Business Interruption	Level 1	Level 1	EE was working on the ADA in SRU when he noticed a strong H2S odor which caused his personal monitor	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2200 Plant #2 SRU		
1918668	4/13/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	EE was working on the ADA in SRU when he noticed a strong H2S odor which caused his personal monitor	Richmond Refinery	Cracking (Rich)	SRU (Rich)	2200 Plant #2 SRU		
1918668	4/13/2010	NLI	NLI - Operational Leak	No Level Selected	Level 1							

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
198919	7/25/2010	LI	LI - Spill	No Level Selected	Level 1	TOP INVESTIGATION-S2 SPILL-A contract truck driver was performing a routine S2 loading @ the S2 Truc	Richmond Refinery	Cracking (Rich)	SRU (Rich)	Sulfur Tank & Loading Racks		
191155	4/28/2010	LI	LI - Product Quality (Int)	Level 3a	Level 3a	This investigation covers both reasons for off-test jet product: the heating exchanger, E-1107, at 1	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
191941	2/20/2010	LI	LI - General Liability	No Level Selected	Level 2	At 1600 hours 4 Feb 2010 a contractor reported to the D&R East Head Operator that on 3 Feb 2010 whil	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
156397	7/24/2009	LI	LI - Paperwork Incomplete/Not sent	Level 1	Level 1	Intended to purchase new re-designed channels for the E-1103 and E-1104 heat exchangers in #4CU, but	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
157657	8/4/2009	LI	LI - Fire/Explosion	Level 1	Level 1	During start up of 4 crude a flange on the atmospheric short loop developed a flange leak. The vapor	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
189232	4/7/2010	LI	LI - Business Interruption	Level 1	Level 1	While performing a special procedure to take the overhead system out of service in 4 Crude Unit, a	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
173240	1/19/2010	LI	LI - Equipment Failure	Level 1	Level 1	P-1165A had a seal leak on 01/19/2010 night shift after ops. attempted to put into service.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1564125	7/26/2009	LI	LI - Equipment Damage	Level 2	Level 2	INITIAL REPORT-At approx 4am K-1171A appears to have been severely hit with liquid causing the dist	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1904814	4/22/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Crew was conducting x-ray on a 6" line coming out of F-1160. All shots completed without incident. W	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1568325	7/26/2009	LI	LI - Safe Operating Limit (SOL) Exceeded	Level 1	Level 1	During the 4 Crude Unit shutdown C-1100 over head system exceeded 450 degree limit.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1941037	5/29/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 2	TOP INVESTIGATION-D&R K1008 COMPRESSOR TRIP	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1674774	10/14/2009	LI	LI - First Aid	Level 1	Level 1	Operator was de-LOTO'ing P-1601 for warm up. In the process of turning one valve, the operators fing	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1594079	8/13/2009	LI	LI - Equipment Failure	Level 1	Level 2	After the 4 Crude start up the operations tried to energize the deaerator grids , they were high in a	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1619775	9/3/2009	LI	LI - First Aid	Level 1	Level 3a	TOP INVESTIGATION-NH3 EXPOSURE AT V-1159B-V-1159B, Off-Gas Compressor Knockout Drum for the	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1970124	5/30/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 2	TOP INVESTIGATION-Two electricians were doing routine online motor tests of checking amps and volt	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1645774	9/23/2009	LI	LI - Plant Run Out/Slow Down	No Level Selected	Level 1	# SAC availability to HNC decreased from 23 MBPD to 19 MBPD over a few hours. This was caused by th	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1661597	3/10/2010	LI	LI - Non-Compliance Company Policy	No Level Selected	Level 1	Two EE's came down the ladder of the fin fan deck and found themselves in the middle of X-ray bania	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1861620	3/15/2010	LI	LI - Non-Compliance Company Policy	No Level Selected	Level 1	Th EE was working inside an Analyzer shelter when he open the door to leave the shelter he found him	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1609460	8/9/2009	LI	LI - Agency Warning - Air	No Level Selected	Level 1	Bypass left open on E-1107 when removing shutdown isolation LOTO resulting in loss of preheat in cru	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1609460	8/9/2009	LI	LI - Operational Leak	No Level Selected	Level 1	Bypass left open on E-1107 when removing shutdown isolation LOTO resulting in loss of preheat in cru	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1609460	8/9/2009	LI	LI - Release	No Level Selected	Level 1	Bypass left open on E-1107 when removing shutdown isolation LOTO resulting in loss of preheat in cru	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1643335	9/23/2009	LI	LI - Equipment Damage	No Level Selected	Level 1	Upon returning from being repelled, P-1149 was turned over to Ops from Main. Ops was preparing to	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1681552	10/21/2009	LI	LI - Equipment Damage	No Level Selected	Level 1	TOP INVESTIGATION-P-1165A APS VALVE	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1771049	12/24/2009	LI	LI - General Liability	No Level Selected	Level 1	After testing alarms K-1100 B shutdown when the shutdown bypass switch was returned to the run posit	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1831327	10/27/2009	LI	LI - Plant Run Out/Slow Down	No Level Selected	Level 1	Warning up P-1159 for hot alignment (6 s/c product) caused a loss of suction pressure to P-1163 (VTC	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1651118	9/26/2009	LI	LI - Equipment Damage	No Level Selected	Level 1	On 9/26/2009, at 0431, P-1163 tripped off line due to low lube oil pressure. At that point operatio	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1671223	02/02/2010	LI	LI - First Aid	Level 1	Level 1	Employee felt discomfort in eye. Reported to clinic to flush eye. No material was found in eye.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#4 Crude Unit		
1540065	7/6/2009	LI	LI - Safe Operating Limit (SOL) Exceeded	Level 2	Level 2	TOP INVESTIGATION-C-810 FOAMING: 20 PLANT SHUTDOWN INCREASED FLOW OF SOUR GAS TO SH2S	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1595542	8/15/2009	LI	LI - First Aid	Level 1	Level 1	Tonight the HO called saying an operator was requesting for someone to look at her knee which was hu	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1582122	7/20/2009	LI	LI - First Aid	Level 1	Level 1	On Monday July 20th around 4 pm during last round employee was out in the DHT. He got something in	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1739400	11/25/2009	LI	LI - Product Contamination (Int)	No Level Selected	Level 1	High LPG make in the D&R complex exceeded the hydraulic capacity of C-860 this raises C-860 pressure	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1543141	7/14/2009	LI	LI - Product Quality (Int)	No Level Selected	Level 1	Earlier today, we reduced the C-450 draw rate to the Panhex. At the same time, we were supposed to	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1645067	9/14/2009	LI	LI - Product Quality (Int)	No Level Selected	Level 1	The DHT had a compressor failure and the DHT operators had to perform an emergency shutdown of the D	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1828225	2/15/2010	LI	LI - Equipment Damage	No Level Selected	Level 1	During installation of VOC tags on the new V870 analyzer building the technician felt heat on his h	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	#5 H2S		
1979561	7/14/2010	LI	LI - NOW - Air	Level 1	Level 1	In preparation to put C-1500 Recycle Gas H2S absorber in service the residual level of rich DEA an	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1632261	9/15/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	At ~ 21:00 the DHT recycle compressor speed controller (Trislen) started acting erratically even thoug	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1981689	7/10/2010	LI	LI - Non-Industrial	Level 1	Level 1	Employee experienced an allergic reaction to seafood that was being cooked in control house.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1976552	7/9/2010	LI	LI - Operational Leak	Level 3a	Level 3a	On July 9, 2010 at 8:35 p.m. the feed pump to the Richmond Diesel Hydrotreater (DHT), P-1601, shut d	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1976552	7/9/2010	LI	LI - Equipment/Unit Trip	Level 3a	Level 3a	On July 9, 2010 at 8:35 p.m. the feed pump to the Richmond Diesel Hydrotreater (DHT), P-1601, shut d	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1976552	7/9/2010	LI	LI - Equipment Failure	Level 3a	Level 3a	On July 9, 2010 at 8:35 p.m. the feed pump to the Richmond Diesel Hydrotreater (DHT), P-1601, shut d	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1630433	9/15/2009	LI	LI - Plant Run Out/Slow Down	No Level Selected	Level 1	The DHT was operating in a steady state condition when K-1600 recycle compressor and surge valve 16	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1841528	3/28/2010	LI	LI - Product Contamination (Int)	No Level Selected	Level 1	TOP INVESTIGATION-DHT HIGH SULFUR-Diesel Tail Line Product was high in Sulfur content on 3/28/10.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1770177	12/23/2009	LI	LI - Business Interruption	No Level Selected	Level 1	On Monday the electricians were sent out to MP-1601 in DHT to attach a lap top computer to download	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1564577	7/26/2009	LI	LI - Contractor Injury	No Level Selected	Level 2	Employee was axciding Times in hang a camera long inside reactor R-1610 as employee looked up some de	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1583904	8/9/2009	LI	LI - Release	No Level Selected	Level 1	In the process of displacing sour DEA from C-1600 to the relief drum a small flow of H2 was released	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1835589	9/17/2009	LI	LI - Permit Exceedance	No Level Selected	Level 1	F-1610 in the DHT was out of the NOx polygon for a 24 hour period following the compressor trip on S	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1981363	7/14/2010	LI	LI - Fire/Explosion	No Level Selected	Level 1	During his round the operator in the DHT noticed insulation smoldering on the outlet cold feed valv	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Diesel Hydro Treater		
1810715	2/1/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Approximately 0830 a large flow of gas from V-3211 into flare gas recovery compressor K-3950 caused t	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1563575	9/11/2009	LI	LI - Release	No Level Selected	Level 1	D&R was trying to purge the condensed light ends out of the out of service 106L D&R H2 Export Line	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1583065	8/6/2009	LI	LI - General Liability	Level 1	Level 1	Approximately 10:15 A.M. K-3950 shut down due to a high liquid level in the first stage knock out. 39	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1575520	8/2/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	K-3950 tripped due to low suction pressure as it was being unloaded. V-1190 off-gas flow rate had i	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1675802	10/15/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 2	TOP INVESTIGATION-LEVEL CONTROLLER ISSUES AT K-3950 CAUSES FLARING	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1976387	7/11/2010	LI	LI - Non-Compliance - Air	No Level Selected	Level 1	On the previous shift hydrocarbon was introduced into the DEA system while placing contactor in serv	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1976713	7/10/2010	LI	LI - Lessons Learned	No Level Selected	Level 1	While depressuring E-1665 to relief with Nitrogen we experienced break through and tripped the total	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1725261	11/11/2009	LI	LI - Lessons Learned	No Level Selected	Level 1	Near Loss - Potential exposure to H2S and liquid hydrocarbon release.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1725261	11/11/2009	LI	LI - Employee Injury	No Level Selected	Level 1	Near Loss - Potential exposure to H2S and liquid hydrocarbon release.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1725261	11/11/2009	LI	LI - Operational Leak	No Level Selected	Level 1	Near Loss - Potential exposure to H2S and liquid hydrocarbon release.	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1731718	11/24/2009	LI	LI - General Liability	No Level Selected	Level 1	Unknowon release in flare causing high liquid level in flare gas recovery compressor knockout pot (V	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1563049	7/24/2009	LI	LI - General Liability	No Level Selected	Level 1	During the clean up and depressurization of the DHT the flow to relief exceeded the capacity of the	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1605488	8/25/2009	LI	LI - General Liability	No Level Selected	Level 1	At approximately 2100 hours #4H2S experienced an upset. To avoid lifting a safety in V-475 the isoma	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1580728	8/5/2009	LI	LI - General Liability	No Level Selected	Level 1	At approximately 1300 #1 Power plant blew down a vessel in D&R relief system at a high rate. The console	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1583589	7/25/2009	LI	LI - General Liability	No Level Selected	Level 2	During the clean up and depressurization of ACAT the flow to relief exceeded the capacity of the fl	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1586972	8/11/2009	LI	LI - Lessons Learned	No Level Selected	Level 1	D&R was trying to purge the condensed light ends out of the out of service 106L D&R H2 Export Line	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	LSFO Flare		
1562085	7/23/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	During cleanup of the DHT plant, H2 used for the hotstripping phase of the fly cleanup was being switch	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1968938	6/29/2010	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	TOP INVESTIGATION-LOSS OF GHT FEED PUMP-On June 29, 2010 at approximately 4:20pm D&R (Distillation	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1968938	6/29/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	TOP INVESTIGATION-LOSS OF GHT FEED PUMP-On June 29, 2010 at approximately 4:20pm D&R (Distillation	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1571079	12/8/2009	LI	LI - Spill	Level 1	Level 2	Contaminated Spent Carbon spit during transfer operations due to equipment failure, a broken slurrin	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1930287	5/19/2010	LI	LI - Permit Exceedance	No Level Selected	Level 1	On 15May2010 at 12:27 Hrs. Outside Operator was checking suction pressure on K-3950 when suction p	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
2010867	6/23/2010	LI	LI - Plant Run Out/Slow Down	No Level Selected	Level 1	TOP INVESTIGATION-LOSS OF GHT FEED PUMP-On August 23, 2010 at approximately 20:30 hours, the Gasol	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1695588	8/27/2009	LI	LI - Non-Compliance Company Policy	No Level Selected	Level 1	a tote box was left on a piece of equipment since 2007	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1592926	7/21/2009	LI	LI - Product Unavailable	No Level Selected	Level 1	Air Products notified IMPACT group that they would be unable to provide a PCS Unit (#2) for the GHT	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1706430	11/5/2009	LI	LI - Product Quality (Int)	Level 1	Level 1	TOP INVESTIGATION-GHT Product Off Test-Gasoline hydrotreater product was routed off test. The lev	Richmond Refinery	Distillation & Reforming (Rich)	D&R East (Rich)	Other (D&R East)		
1641362	8/5/2009	LI	LI - MVC - Company	Level 1	Level 1	While backing up a company truck the rear bumper hit the rear tailight on the Nalco car.	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	D&R Admin Office Building #3		
1583993	3/4/2010	LI	LI - First Aid	Level 1	Level 1	Upon returning to his truck after bottle delivery to D&R, employee noticed bleeding on his left thumb	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	D&R Control House		
2000269	8/9/2010	LI	LI - MVC - Company	Level 1	Level 1	Employee was driving north on Petrolite St. and making a right onto Rerun St. to enter the D&R Contr	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	D&R Control House		
1539741	7/6/2009	LI	LI - Employee Injury	No Level Selected	Level 1	Worker was working on a 12' beam without being tied off with Harness Lanyard, (10 feet above ground	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1721250	11/16/2009	LI	LI - Equipment Damage	No Level Selected	Level 2	TOP INVESTIGATION-PIPE FELL FROM PIPERACK AT SH2S	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1721250	11/16/2009	LI	LI - Contractor Injury	No Level Selected	Level 2	TOP INVESTIGATION-PIPE FELL FROM PIPERACK AT SH2S	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1536568	7/2/2009	LI	LI - Contractor First Aid	Level 1	Level 2	Worker was walking down the V-line and fell something in his left eye.	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1983286	7/19/2010	LI	LI - Release	Level 1	Level 1	This loss investigation is for Panhex reactor excursion and flare totalizer trip that was a consequ	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1775341	12/30/2009	LI	LI - Equipment Damage	Level 1	Level 1	The operator was using an extended reach forklift equipped with a hook attachment secured to the for	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1976462	7/9/2010	LI	LI - First Aid	Level 1	Level 1	Employee was riding a bike to the control room and felt a sting or bite on the neck. Employee immed	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1705401	11/9/2009	LI	LI - Contractor First Aid	Level 1	Level 1	Two workers were lifting a 40' section of 2" sch 80 pipe to set on jack stands. (Approx. 2006) Work	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		
1650994	7/15/2009	LI	LI - Contractor Days Away From Work Case	Level 3a	Level 3b	Initial description revised per TapRoot investigation report: On July 15, 2009 at approximately 2:0	Richmond Refinery	Distillation & Reforming (Rich)	D&R General (Rich)	Other (D&R)		

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
1989171	7/26/2010	U	U - First Aid	Level 1	Level 1	TOP INVESTIGATION-POTENTIAL ARM INJURY-As part of daily duties, the operator working the Caustic	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#4 Rheniformer		
1863540	3/14/2010	U	U - Days Away From Work Case	Level 2	Level 2	On Sunday, March 14th at approximately 11:20am, a Chevron Fixed Equipment Inspector was injured while	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#4 Rheniformer		
2036930	9/28/2010	U	U - Equipment/Unit Trip	Level 1	Level 1	At 16:56 K-3550 tripped off line. Operations responded and found the TriSand had no power on the pan	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#4 Rheniformer		
1865830	3/15/2010	U	U - Contractor First Aid	Level 1	Level 1	EE was inside R-3560, moving scallops, when a C-clamp fell onto his hand.	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#4 Rheniformer		
1892097	4/5/2010	U	U - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-START UP DELAYS-During the commissioning of the 4Rheniformer Plant (at the Distl	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#4 Rheniformer		
18	12/22/2009	U	U - Spill	Level 1	Level 1	One gallon of used oil was spilled onto the asphalt around the D&R ABU from a punctured drum by a	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#4 Rheniformer CWT		
1	9/2/2009	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	Today at the NHT we had TP-447A trip off line on governor control swing (under investigation IMT) a	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Naphtha Hydro Treater		
1	10/14/2009	U	U - Plant Run Out/Slow Down	Level 3a	Level 3a	TOP INVESTIGATION-FIRE AT #5 CAT-E-5708 EXCHANGER-This event occurred at the 5Rheniformer (S CAT)	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
108	10/14/2009	U	U - Fire/Explosion	Level 3a	Level 3a	TOP INVESTIGATION-FIRE AT #5 CAT-E-5708 EXCHANGER-This event occurred at the 5Rheniformer (S CAT)	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1575833	7/15/2009	NLI	NLI - Product Quality (Int)	No Level Selected	Level 2	Unleaded TKN Limited to T-634. During the 7/15/09 RROT call PED heard that while V-451 is out-of-se	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1737359	11/10/2009	U	U - Fire/Explosion	Level 1	Level 1	Insulation fire due to small leak on top side of E-593 (Reboiler). Operations quickly extinguished f	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1741625	11/10/2009	U	U - Fire/Explosion	Level 1	Level 1	TOP INVESTIGATION-POSSIBLE BENZENE EXPOSURE-Following an insulation fire due to a small leak on th	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1741625	11/10/2009	U	U - Non-Compliance Company Policy	Level 1	Level 1	TOP INVESTIGATION-POSSIBLE BENZENE EXPOSURE-Following an insulation fire due to a small leak on th	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1825215	8/5/2009	U	U - Plant Run Out/Slow Down	Level 3a	Level 3a	On August 4th routine sampling of the 5 Rheniformer recycle gas with a drager revealed a concentrati	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1859770	10/2/2009	NLI	NLI - Lessons Learned	No Level Selected	Level 1	At 10/2/09, approximate 00:33 hrs. While depressurizing 5 Rhen, outside operations cracked open a va	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1859770	10/2/2009	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	At 10/2/09, approximate 00:33 hrs. While depressurizing 5 Rhen, outside operations cracked open a va	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
2008730	8/20/2010	NLI	NLI - Non Compliance - Air	No Level Selected	Level 1	Blowing down low points tripped the totalizer, no flare activity seen	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1545482	7/7/2009	U	U - Fire/Explosion	Level 1	Level 1	Work was being performed on leaking exchanger. This was necessary pre-work to prepare exchanger for	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1575833	7/15/2009	NLI	NLI - Product Contamination (Int)	No Level Selected	Level 2	Unleaded TKN Limited to T-634. During the 7/15/09 RROT call PED heard that while V-451 is out-of-se	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1937241	5/20/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	5 Cat furnaces (F556/607/603) tripped to min fires during Manual S/D trip quick test (AP7002). The s	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	#5 Rheniformer		
1554571	7/17/2009	NLI	NLI - Release	No Level Selected	Level 2	While starting K-242, the D&R flare experienced brief activity. All K-242 valves were immediately ret	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1832860	2/21/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	South of the JHT plot limit, A line labeling signboard made of plywood in the overhead fell on over	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1586451	8/5/2009	U	U - Permit Exceedance	Level 1	Level 1	F-210 exceeded it's CO limit of 400 ppm average for 24 hour period. The JHT was being started up and	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1586451	8/5/2009	U	U - NOV - Air	Level 1	Level 1	F-210 exceeded it's CO limit of 400 ppm average for 24 hour period. The JHT was being started up and	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1994494	7/30/2010	U	U - Equipment/Unit Trip	Level 1	Level 1	While bringing up a 2nd Reflux compressor K-242 on the West side, a high level S/D in V-243 KO trip	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1994494	7/30/2010	U	U - Release	Level 1	Level 1	While bringing up a 2nd Reflux compressor K-242 on the West side, a high level S/D in V-243 KO trip	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1563051	7/18/2009	U	U - NOV - Air	Level 1	Level 1	We exceeded the CO title V limit on F-210 on Saturday 7/18 and Sunday 7/19. The 24 hours averages ca	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1864442	10/10/2009	U	U - Equipment Failure	Level 1	Level 1	Pump could not be put in service due to shaft seizing while heating up for alignment. Pump was remov	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1987502	7/19/2010	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	TOP INVESTIGATION-FSC CHOPPER TRIP-On July 19th, 2010, the Jet Hydrotreater Plant experienced a to	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1898826	1/11/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 3a	GMfg Lessons Learned - API612 work for TK-200. TK-200 is the steam turbine driving the Jet Hydrotre	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Jet Hydro Treater		
1829391	9/10/2009	U	U - MVC - Company	Level 1	Level 1	EE was moving a weld rig between Debru and the cooling tower and made contact with a yellow pole.	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO CWT		
1926393	5/15/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	At approximately 10:36 AM, on May 15th, the temperature on the 2nd stage #1 cylinder for K-900 Hyd	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO H2 Booster		
1829759	2/17/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	K900A 2nd stage valves got hot and during the switching the machine with hot valves the stop switch	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO H2 Booster		
1680491	10/19/2009	NLI	NLI - Release	No Level Selected	Level 1	Head Operator and Plant Operator were getting K-900A ready for blending. Once compressor was isolate	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO H2 Booster		
1534806	7/5/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 2	West side spa received an alarm for a hot valve on K-900A second stage (411010). The temperature h	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO H2 Booster		
2015540	8/21/2010	U	U - Business Interruption	Level 1	Level 1	V-970 had a crust layer at the top of the chlorido adsorbent bed that would not come out of the dump	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO H2 Booster		
2023718	9/5/2010	U	U - Equipment Failure	Level 1	Level 1	On Sunday September 5th, K-900A was put back in service after completion of compressor frame bolt re	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	LSFO H2 Booster		
1568256	7/28/2009	U	U - Equipment Damage	Level 1	Level 1	A company employee parked a leased pickup on Furnace St facing north on east side of road and shut o	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Other (D&R West)		
1584258	7/28/2009	U	U - MVC - Company	Level 1	Level 1	A company employee parked a leased pickup on Furnace St facing north on east side of road and shut o	Richmond Refinery	Distillation & Reforming (Rich)	D&R West (Rich)	Other (D&R West)		
1879765	3/25/2010	U	U - Non-Industrial	Level 1	Level 1	RLOP EE Non Industrial: EMT's responded to Hydro control room for Operator complaining of chest pai	Richmond Refinery	Hydro Processing (Rich)	Hydro Processing General	Hydro Processing Control Center		
1927364	4/30/2010	U	U - First Aid	Level 1	Level 1	Record keeping purpose only, no injury at this time - Hearing shift	Richmond Refinery	Hydro Processing (Rich)	Hydro Processing General	Hydro Processing Control Center		
2021770	9/4/2010	NLI	NLI - Fire/Explosion	No Level Selected	Level 1	At 18:25 9/4/10 a small fire was noticed burning inside of 475 platform (just outside of the HPCC No	Richmond Refinery	Hydro Processing (Rich)	Hydro Processing General	Hydro Processing Control Center		
1984347	7/20/2010	U	U - Contractor First Aid	Level 1	Level 1	ERS employee was installing a tray of Potassium Permanganate H2S filtration media in the HPCC. While	Richmond Refinery	Hydro Processing (Rich)	Hydro Processing General	Hydro Processing Control Center		
1927410	4/30/2010	U	U - Non-Industrial	Level 1	Level 1	Record keeping purpose only, no injury at this time - Hearing shift	Richmond Refinery	Hydro Processing (Rich)	Hydro Processing General	Hydro Processing Control Center		
1891208	4/6/2010	U	U - First Aid	Level 1	Level 1	Operator came to work with slight eye irritation. Operator was working on the North Isomax control b	Richmond Refinery	Hydro Processing (Rich)	Hydro Processing General	Hydro Processing Control Center		
1605660	8/25/2009	U	U - Safe Operating Limit (SOL) Exceeded	Level 1	Level 2	On night shift of 8/25/09 - Loss of C-730 18A tray caused P-734 pump to loose suction. This caused N	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1813716	2/3/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	At about 3:30 pm today, - contract employee is working on vessel V-7344, before starting his wor	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1605476	8/25/2009	U	U - Equipment Failure	Level 1	Level 1	At start of night shift, Operations became concerned about H2S coming from the K-734/S. K-734B had J	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1815944	2/9/2010	U	U - First Aid with Medical Referral	Level 1	Level 3a	Operator fell through grating at K-734A while performing routine operator duties. The operator repo	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	GRU7 Light Gas sample station began to spray from MAGCT fitting while pulling a sample. The fitting	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		
1860302	10/23/2009	NLI	NLI - Contractor First Aid	Level 1	Level 1	Taproot investigation - TKN E757 H2S exposure: Circle reported that a Flour EE performing Fire Wat	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	GRU 7		

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
169534	3/17/2010	LI	LI - First Aid	Level 1	Level 2	At around 11:45 a.m. Hydro supervisor was called to the old north Isomax control room for an operato	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Old Control House (N.Iso)		
169607	3/17/2010	NU	NLI - Contractor Injury	No Level Selected	Level 1	While exiting trailer EE stepped off platform and twisted left ankle. EE was checked out by Chevron	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
191671	5/2/2010	NLI	NLI - Employee Injury	No Level Selected	Level 1	While conducting water washing of the reactor effluent samples the product had to be removed from th	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
195746	3/9/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	EE woke up and his shoulder felt hurt. Reported to supervisor after safety meeting.	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
1955159	3/6/2010	NU	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	Two contract EE's (Matrix) reported to NISO SDC that their personal monitor alarmed.	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
0	6/22/2010	NLI	NLI - Agency Warning	No Level Selected	Level 1	Contra Costa County Health Services Department's Audit follow up review for.	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
0	6/22/2010	NLI	NLI - Non Compliance	No Level Selected	Level 1	Contra Costa County Health Services Department's Audit follow up review for.	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
0	7/2/2009	LI	LI - Contractor First Aid	Level 1	Level 2	Iren Worker had set her grinder off to the side after use. A moment later she shifted her body posit	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
0	7/6/2009	LI	LI - Contractor First Aid	Level 1	Level 2	A worker was chipping concrete when the wind kicked up and he felt dust go into both of his eyes. H	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
1951456	6/14/2010	LI	LI - First Aid	Level 1	Level 2	While returning from the lab after reporting his sample results a North Isomax Operator was returnin	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
195676	7/1/2009	LI	LI - Contractor First Aid	Level 1	Level 2	A worker reported that he scraped his hand while moving a welding machine. He stated that he had r	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
1980722	8/5/2009	LI	LI - MVC - Contractor	Level 1	Level 1	Biggo Operator was leaving after installing pump near cooling towers. He was not using a spotter. He	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
196468	12/12/2009	LI	LI - First Aid	Level 1	Level 1	Operator was sitting at the TKC control board when his neck suddenly tightened and locked up. He imm	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
1993642	9/24/2009	LI	LI - Equipment Damage	Level 1	Level 1	Contra Costa Fire Department Engine company responded mutual aid to the Richmond Refinery for a pum	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
1910411	4/22/2010	LI	LI - Security Incident	Level 1	Level 1	Personal employee's computer was taken to home for intermittent work around a vacation scheduled. T	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	Other (N.Iso)		
1621011	9/5/2009	NLI	NLI - Employee Injury	No Level Selected	Level 2	While performing an inspection inside of R-421, EE was struck on his right forearm by a tape measure	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1947044	6/5/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	In an attempt of removal of the heat insulator (sleeve) from inside of the quench nozzle to bed 3 in	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1861666	3/11/2010	LI	LI - MVC - Company	Level 1	Level 1	The Chevron "low boy" tractor/trailer was traveling west bound on Isomax SL. As the driver of the "	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1964467	6/26/2010	NLI	NLI - Safe Operating Limit (SOL) Exceeded	No Level Selected	Level 1	NLI is for the increase of reactor sums in TKC. This was caused by the loss of SDA hot DAO. There	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1976779	7/11/2010	NLI	NLI - Abnormal Supply Occurrence	No Level Selected	Level 2	At 04:15 on 11/7/10 the TKC feed valves started swinging 1.5-2.0 KBPD each. The VGO rate to the TKC	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1923874	5/12/2010	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	Machinist were installing MP-455A. Electricians were called to reconnect motor. One electrician went	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1986266	7/25/2010	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 1	On July 25, 2010 at about 15:25, while operations was completing the job of water washing E-450 and	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
2028511	8/26/2010	LI	LI - Equipment Damage	Level 1	Level 1	110 Volts applied to Honeywell FTA card	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1713394	11/24/2009	LI	LI - Operational Leak	Level 1	Level 1	LI 452 level brld needed to be clean up for work on U. This process involves having a maintenance	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1785275	11/12/2010	LI	LI - NSR Consent Decree	Level 2	Level 3a	Description of Incident:	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1785275	11/12/2010	LI	LI - Equipment Failure	Level 2	Level 3a	Description of Incident:	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1946089	6/6/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	TOP INVESTIGATION-P-455B HIGH VIBRATION TRIP OUT-The weekly water wash of E-550 (Shall/Tube Heat E	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1677645	10/18/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 2	At 07:30, TKC lost feed. The previous night shift had experienced P-401B feed pump cavitation and in	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1995306	8/2/2010	LI	LI - First Aid	Level 1	Level 1	At 01:30 North Isomax Ho notified STL that an operator made contact with steam tracing and had a bur	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1943891	6/2/2010	LI	LI - Contractor Medical w/o lost time	Level 2	Level 2	A Catalyst Services crew was working in reactor R-411 at Chevron Richmond Refinery on June 2, 2010.	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1954541	6/16/2010	LI	LI - Permit Exceedance	Level 1	Level 2	During Sulfiding of TKCR410/411 reactors, a quench valve was opened in response to cat activity in b	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1571195	7/29/2009	LI	LI - Permit Exceedance	Level 1	Level 3a	TapRoot Investigation - Liquid Carryover into TKC K-400 Recycle Compressor and Resulting Flaring aft	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1571196	7/29/2009	LI	LI - Equipment Damage	Level 1	Level 3a	TapRoot Investigation - Liquid Carryover into TKC K-400 Recycle Compressor and Resulting Flaring aft	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1571196	7/29/2009	LI	LI - Business Interruption	Level 1	Level 3a	TapRoot Investigation - Liquid Carryover into TKC K-400 Recycle Compressor and Resulting Flaring aft	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1518401	7/4/2009	LI	LI - Equipment Failure	Level 1	Level 1	During TKC start up the level indicators on V-440 and V-450 failed. These instrument level indicate	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1516039	7/1/2009	LI	LI - First Aid	Level 1	Level 1	Operator looked up and felt something fall into his eye. Another operator came to assist him to a ey	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1779255	1/4/2010	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	TKC4 - Bad packing orbit valve on PC4000 mainfeed; PC4000 downstream block valve was discovered to	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1562822	7/4/2009	LI	LI - Business Interruption	Level 1	Level 1	The new guided wave radar transmitters gave false high scale readings for level measurements for V-4	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1511769	7/4/2009	LI	LI - Equipment Failure	Level 1	Level 1	During the execution of the TKC purity project (reliability scope), the MU H2 to K-400 suction pipi	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 4		
1692492	10/27/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 2	P-713 pump was returned to service but prior to startup 2 improper conditions were found:	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1974564	3/9/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	While walking in plant near east end of P-737 in ISO 7, EE stepped on anchor bolt that was protrudin	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1916444	7/19/2010	NLI	NLI - Incorrect Product	No Level Selected	Level 1	P-713A APS controller had failed. Incorrect replacement was ordered by the P&S Group Planner. Spare	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1687006	10/24/2009	NLI	NLI - Product Unavailable	No Level Selected	Level 1	Followed written procedure of lining up valves to allow a standby pump (returning from maintenance)	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1872275	3/21/2010	LI	LI - Contractor First Aid	Level 1	Level 1	On March 21, 2010 at about 17:30 an contractor got a particle in the eye while being a gate attendan	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1927757	3/17/2010	LI	LI - Non-Industrial	Level 1	Level 1	EE had felt ill at home prior to reporting to work. After EE arrived at work the discomfort never su	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1766189	12/20/2009	LI	LI - Equipment Failure	Level 1	Level 2	0630 while filling LGO pumps into oil reservoir, area operator smelled HGO in atmosphere.	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1587638	8/11/2009	LI	LI - Equipment Failure	Level 1	Level 1	Operators was switch compressor K-714A to K-714. K-714 had been returned to operators following mino	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1946120	5/6/2010	LI	LI - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-SAFETY LIFTS ON V-712-An Operator was called to check on a pressure gauge on the	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1918805	5/5/2010	LI	LI - NOV - Air	Level 2	Level 2	FCC analyzer was disrupted by vapor flow from NISO during startup of the NH-3 scrubber. No water sea	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1566745	7/27/2009	LI	LI - Spill	Level 2	Level 2	TOP INVESTIGATION-FLARING EVENT/NOX LIMITS EXCEEDED-Flaring occurred for approximately 14 minutes	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
45	7/27/2009	LI	LI - Equipment Failure	Level 2	Level 2	TOP INVESTIGATION-FLARING EVENT/NOX LIMITS EXCEEDED-Flaring occurred for approximately 14 minutes	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
4	9/24/2009	LI	LI - Spill	Level 3a	Level 3a	P-713 seal failed which ignited and caused shut down of TKC (No spare available). OWS-4 operator	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
4	9/24/2009	LI	LI - Loss of Containment (LOC) Corp Reportable	Level 3a	Level 3a	P-713 seal failed which ignited and caused shut down of TKC (No spare available). OWS-4 operator	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1646404	9/24/2009	LI	LI - Fire/Explosion	Level 3a	Level 3a	P-713 seal failed which ignited and caused shut down of TKC (No spare available). OWS-4 operator	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1607220	8/24/2009	LI	LI - Equipment Failure	Level 3a	Level 3a	The TKC Main Fractionator (C-710) overhead temperature experienced a temp excursion for the period b	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1542461	7/7/2010	LI	LI - First Aid	Level 1	Level 2	When working at TKC a particle landed in my left eye, causing discomfort. Went to the refinery clin	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1967951	6/29/2010	LI	LI - First Aid	Level 1	Level 1	Mechanic was walking through plant when he felt a particle enter his eye. He had on his safety glasse	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1852138	3/4/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Delta Tech employee moving down a ladder when a particle was blown around his safety glasses and in	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1627759	9/24/2009	LI	LI - Product Quality (Int)	Level 1	Level 1	Between 8:24 AM and 8:26 AM, T-1798 jet tank was being filled. When the tank was attempted to be	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKC 7		
1560320	7/22/2009	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	loss of mp-510 suc. while doing a pump swap on bp-510 to mp-510 the pump lost suction. these pumps	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1855704	3/3/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	On March 8, 2010 approximately 01:30 Koch Plant Specialty EE's were working on replacing a slip bin	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1857219	3/8/2010	NLI	NLI - Release	No Level Selected	Level 1	Contractor EE cleaning out V-550 had a personal H2S monitor go off. EE notified supervisor who then	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1857219	3/8/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	Contractor EE cleaning out V-550 had a personal H2S monitor go off. EE notified supervisor who then	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1857398	3/9/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	EE went to get in his vehicle and noticed he had cut his left index finger. EE is not sure when or	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1620002	8/28/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	C-730 Btm sample: Three way valve was replaced with 3/4 inch globe valve, IG guide was not changed	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2021095	9/2/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	Particle in the eye as the EE was removing debris from E-530 stud holes using an air hose. EE was we	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2030167	9/17/2010	NLI	NLI - General Liability	No Level Selected	Level 2	R-530, Falling tool from top of reactor. At the end of shift, a Contract EE lost control of a tool h	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2035727	9/23/2010	NLI	NLI - Operational Leak	No Level Selected	Level 1	At approximately 2:30 A.M. on Friday Sept 24th, while performing the 2000lb leak check on R-530 re	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1833567	3/24/2010	LI	LI - First Aid	Level 1	Level 1	While performing shutdown related work, a North Isomax operator bumped his right elbow on a staging	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2036682	9/25/2010	LI	LI - Incorrect Volume	Level 1	Level 1	Discrepancy in volume of DMDS delivered to TKN for sulfiding of R-530. The totalizer flow on the de	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1898569	4/15/2010	LI	LI - First Aid	Level 1	Level 1	Pinched Thumb while opening isolation block valve. Operator was unblocking an isolation block valve	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2030450	9/18/2010	LI	LI - Fire/Explosion	Level 1	Level 2	On the morning of Saturday September 18, 2010, during the unplanned R-530 Catalyst Change Shutdown,	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1992224	8/21/2009	LI	LI - Equipment Failure	Level 3a	Level 3a	TapRoot Investigation - (Loss of K500) At approximately 0130 the North Isomax workstation 3 operator	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2040374	9/28/2010	LI	LI - Release	Level 1	Level 1	Leak found on R530 bed 5 quench controller 741cv538. Steam fence put on leak to mitigate fire pote	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2040374	9/28/2010	LI	LI - Loss of Containment (LOC) Tier 2	Level 1	Level 1	Leak found on R530 bed 5 quench controller 741cv538. Steam fence put on leak to mitigate fire pote	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2012009	8/24/2010	LI	LI - Contractor First Aid	Level 1	Level 2	Contract EE working as heli watch person for 2 fellow workers wet dumping spent catalyst from Reacto	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
2017152	8/26/2010	LI	LI - Non-Industrial	Level 1	Level 1	At the end of his shift, Contract EE started to feel a twitching sensation in his fingers. He report	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1874358	3/22/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Employee was carrying some material, walking around quite a bit. Employee was seen holding his chest	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1880915	3/26/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Around 1400 hrs a contract EE felt a particle enter their eye possibly from a truck who passed them	Richmond Refinery	Hydro Processing (Rich)	North Isomax (Rich)	TKN 5		
1556649	7/20/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	TOP INVESTIGATION-PERSONNEL STUCK IN ELEVATOR-Three contract employees were mobilizing their equip	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1695804	10/29/2009	NLI	NLI - Product Quality (Int)	No Level Selected	Level 1	T-3107, which contains 600R from the HNF unit, did not final for appearance only. A test for residu	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1766462	12/20/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Near loss: loss of feed to plant for 8 minutes.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
2003160	8/12/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	At 1523 hrs, Heavy Neutral Hydrofinisher recycle hydrogen compressor shutdown alarm 86UA864 came on	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1754802	12/10/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	At 13:25 on Thursday, December 10th, HNF (16pt) H2 recycle compressor (K-1800) tripped on a suction	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1802604	1/26/2010	LI	LI - Days Away From Work Case	Level 2	Level 2	WHILE INSTALLING BLINDS AT P-1601B, MECHANIC WAS LOOSENING STUDS ON 1 1/2" 2500# FLANGE	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1974772	7/13/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	RLOP Operators were preparing to switch P-1655 and P-1635 pumps for maintenance. These bottoms pumps	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1974908	7/7/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	TOP INVESTIGATION-P1635 PUMP SWAP ISSUES (Also reference IPS # 1978779): On July 7th, 2010, the Hea	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1575705	9/1/2009	LI	LI - Contractor First Aid	Level 1	Level 2	EE was hit by the chain from a chain fault in the hard hat and slightly down his right arm causing a	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)	HNF		
1589757												

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL1	LEVEL2	LEVEL3	LEVEL4	LEVEL5	LEVEL6
1999307	8/5/2010	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	During day shift on August 5, 2010, Process Control Engineering and Process Engineering were trouble	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1948316	6/6/2010	LI	LI - Equipment Failure	Level 1	Level 1	A leak was discovered on the HNC V-1410-20 sour H2O line at the cracker boundary just upstream of an	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1556851	7/18/2009	NIJ	NIJ - Operational Leak	No Level Selected	Level 1	On Saturday July 19 at 14:00 operations noticed C-1550 inlet flange leaking process. This was durin	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1783565	1/11/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	Loss of Instrument air supply to controller for Fuel Gas for F-1500 and AAB chopper valves on Fuel &	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1783566	1/11/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Loss of Instrument air supply to controller for Fuel Gas for F-1500 and AAB chopper valves on Fuel &	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1626433	9/7/2009	NIJ	NIJ - Product Quality (Int)	No Level Selected	Level 2	T-3164 was off-test on cold crank viscosity for the 100R run that ended on 9/7/09. The measured CDV	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1774665	12/30/2009	NIJ	NIJ - Plant Run Out/Slow Down	No Level Selected	Level 1	LNK - K1300 slowed down; chopped F1310 to min. flow on low low H2 flow. Suspected cause was wet 40#	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1923281	5/11/2010	NIJ	NIJ - Safety Systems and Relief Devices	No Level Selected	Level 1	Attempted to start the LNF feed pump P1301A but the pump tripped out before pump came online. An of	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1812179	2/1/2010	NIJ	NIJ - Product Quality (Int)	No Level Selected	Level 2	The RLOP Light Neutral Finisher was on a 7R UCBO run from 1/29/10 at 12:00 to 2/1/10 at 09:00 (2.5 d	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1865744	3/15/2010	NIJ	NIJ - Equipment Damage	No Level Selected	Level 1	Loss of P-1360A (Hot Oil Pump).	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1908131	4/26/2010	NIJ	NIJ - Non-Compliance Company Policy	No Level Selected	Level 1	HVAC mechanic was called out to repair a chiller at the LNF. The mechanic did not have an operator s	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1867413	3/16/2010	NIJ	NIJ - Product Unavailable	No Level Selected	Level 1	During dayshift, plant operators noticed LNF stand-by feed pump was cold. Operations opened warm-up	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1923366	5/12/2010	NIJ	NIJ - Release	No Level Selected	Level 1	During the LNF startup the level in the High Pressure Separator dropped and the level control valve	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1956473	6/18/2010	LI	LI - First Aid	Level 1	Level 2	RLOP Operator was walking to collect a 2 side cut sample while he was walking past the 4 side cut pu	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1671483	10/13/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	LNC recycle gas compressor K-1100 was automatically shutdown due to a high vibration reading on the	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1812205	1/11/2010	LI	LI - Paperwork Incomplete/Not Sent	Level 1	Level 3a	A pin-hole leak developed on the boiler feed water line attached to V-1375 in 13 plant in RLOP. This	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1812205	1/11/2010	LI	LI - Business Process	Level 1	Level 3a	A pin-hole leak developed on the boiler feed water line attached to V-1375 in 13 plant in RLOP. This	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1537549	7/3/2009	LI	LI - Product Quality (Int)	Level 1	Level 1	LNK Off Test Product - Pour Point: At 18:40hrs the LNF Bms stream (220R) was routed Off test due	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1624933	2/14/2010	LI	LI - Business Interruption	Level 1	Level 1	LNK bins off test on high Pour Point: LNF bottoms (220R) routed off test line due to off-test pour	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1664443	7/5/2009	LI	LI - Days Away From Work Case	Level 2	Level 2	On the morning of July 5th 2009 approx 0900 CFDRMNT were notified of possible injury in Hydro. EE w	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1662659	6/24/2010	LI	LI - Safe Operating Limit (SOL) Exceeded	Level 1	Level 1	While switching to a 220R run in the LNF F-1750 was run with < 0.3 G/G for 5 hrs. From shortly after	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1892214	4/7/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 2	LNK recycle compressor K-1300 shutdown due to high turbine vibration. Consequently, system pressure	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1892214	4/7/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 2	LNK recycle compressor K-1300 shutdown due to high turbine vibration. Consequently, system pressure	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1971076	4/4/2010	LI	LI - Equipment/Unit Trip	Level 2	Level 2	LNK reactor feed furnace F-1310 FSC tripped on low gas flow during a 220R to 110RLV feed switch. The	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1982618	4/20/2010	LI	LI - Equipment Failure	Level 3a	Level 3a	On 4/20/10, water-contaminated feed was sent to the LNF during a 220R to 110RLV feed switch. As the	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1807230	1/29/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 2	Chopped F1750 on low HC flow due to reducing feed 3K. Don't lose any product since procedure requi	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1866449	7/17/2010	LI	LI - Product Quality (Int)	Level 1	Level 1	The LNF completed a 110RLV production run on 7/18/10 night-shift. The tank filled with a VI of 119	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1588153	8/8/2009	NIJ	NIJ - Lessons Learned	No Level Selected	Level 1	During an SSE audit, Short Service Employee lacked knowledge of LPSA. EE is at elevated risk of in	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1556243	7/18/2009	NIJ	NIJ - Release	No Level Selected	Level 1	TOP INVESTIGATION-OVER-PRESSURED RELIEF SYSTEM at FLARE GAS RECOVERY	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1749930	12/22/2009	NIJ	NIJ - Business Process	No Level Selected	Level 1	On 05/04/2009 Operations generated a Work Request for electrical support to troubleshoot a possible	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2022566	9/5/2010	NIJ	NIJ - Safe Operating Limit (SOL) Exceeded	No Level Selected	Level 1	-Currently reducing feed in LNC due to a high temperature on E-1256. -The outlet temperature high	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1561279	7/22/2009	LI	LI - Operational Leak	Level 1	Level 1	TOP INVESTIGATION-RH1 TO TOP INLET COMPANION FLANGE LEAK-While performing a sniff test for an entry	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1983342	4/16/2010	LI	LI - Incorrect Product	Level 1	Level 1	This is a loss of approximately 1.5 m3 of W110RLV production into the W100 tank.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1599987	8/15/2009	LI	LI - Permit Exceedance	Level 1	Level 1	815 - Exceedance confirmed - High CO from F-1200 is the main contributor to >1000 ppm due to FG fo	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2011773	8/24/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 2	The LNC Recycle compressor, K-1100, emergency shutdown activated on 8/24 @ 1:13 PM. Operations made	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1553217	7/17/2009	LI	LI - Fire/Explosion	Level 1	Level 1	LNC Fire at E1103 Feed/Bottoms exchanger. E1103 channel to shell side developed a leak and ignited.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1997107	8/4/2010	LI	LI - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-While on an 110RLV (Richmond Low Volatility) specialty run, the Light Neutral Fin	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1875116	3/25/2010	LI	LI - Equipment Failure	Level 1	Level 1	At roughly 09:50am LNC bottoms P-1255 cavitated. The other pump P-1255A AFS'd and cavitated also. O	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1620776	8/31/2009	LI	LI - Equipment Damage	Level 1	Level 1	Loss of base oil production due to reducing LNF feed rate, bumping of the LNC, in order to repair	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2014113	8/26/2010	LI	LI - Product Quality (Int)	Level 1	Level 1	LNC off test. Throwing off Jet Production Tank T-3190-C-1200 stripper C-1230 level upset caused hea	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1809904	2/17/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	LNC-K1100 shutdown on High Vibration: There has been recent issues with controlling E-1100 (Surfa	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1907439	4/24/2010	NIJ	NIJ - Product Quality (Int)	No Level Selected	Level 1	LNC jet product off-test on freeze (high).	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1769126	12/21/2009	NIJ	NIJ - Product Unavailable	No Level Selected	Level 1	RLOP K-1297 variable speed drive fan failed. Fan serial and model numbers were not accessible unless	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1764434	12/17/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	K1297 went down on high temp and chopped F1200 and F1250. K-1297 shutdown due to high temperature a	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1767688	12/21/2009	LI	LI - First Aid	Level 1	Level 1	As operator was descending stairs on north side of LNC boundary, steam from V-1275 bleed to grade co	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1550883	9/25/2009	NIJ	NIJ - Business Interruption	No Level Selected	Level 2	A Near Miss occurred when a 9/16in socket fell from an unknown height off of C-1810. No workers were	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1576125	7/8/2009	NIJ	NIJ - Contractor Injury	No Level Selected	Level 1	Engaged in What Work When Injured. Night shift employee was removing old grease fittings and install	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1991118	10/19/2009	NIJ	NIJ - Lessons Learned	No Level Selected	Level 1	During the 3Q09 18 Plant Major Shutdown, a total of (6) API 45 trim (410SSHF) valves were installed	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1648880	9/27/2009	NIJ	NIJ - Lessons Learned	No Level Selected	Level 1	Do to the TKG fire on 9/24; the wild naphtha stream to C-1100 (ATCR) was blocked in order to prevent	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1679164	10/15/2009	NIJ	NIJ - Business Interruption	No Level Selected	Level 1	Mechanics were installing the bearing bracket on P-1821A. There was a discrepancy noted by the mecha	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1560350	7/22/2009	NIJ	NIJ - Safety Systems and Relief Devices	No Level Selected	Level 1	During the clean-up of 18 Plant GRU, the combined relief header to K-1060 and K-1070 FGR compressors	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1686781	10/24/2009	NIJ	NIJ - Equipment Damage	No Level Selected	Level 1	During the start up of 18 plant (RLOP 2NH3 H2S) an operator noticed the small stream of sour water s	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1840180	9/10/2009	NIJ	NIJ - Equipment Damage	No Level Selected	Level 1	RLOP's Trainer (wetting a Job Aid) was conducting a field test on GRU-19 propane sample station - di	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1691932	10/20/2009	NIJ	NIJ - Lessons Learned	No Level Selected	Level 1	During the 3Q09 18 Plant Major Shutdown execution, a new column was ordered from BFM to replace C-18	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1667280	10/8/2009	NIJ	NIJ - Operational Leak	No Level Selected	Level 1	Employee was verifying Loto of pump in 18 Plant. Pump was returning from shop. While opening bleed	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1758119	12/12/2009	NIJ	NIJ - Safety Systems and Relief Devices	No Level Selected	Level 1	while in route to shut down a feed pump p-1601, at 13:00 RLOP lost all radio contact, the portable h	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2010270	8/17/2010	NIJ	NIJ - Product Contamination (Int)	No Level Selected	Level 1	At about 1000H, P-1645 is observed to be gassing off and this initiated fluctuation of flow swingin	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1991405	7/28/2010	NIJ	NIJ - Non-Compliance - Air	No Level Selected	Level 1	I received a notice through the RLOP OMC from the AGIO-VOC inspections group stating that VOC TAG #	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1926728	5/15/2010	NIJ	NIJ - Non-Compliance	No Level Selected	Level 1	"C" Crew Night shift on 05/15/2010 & 05/16/2010 worked understaffed. While plant start up was in pro	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1970102	8/30/2010	NIJ	NIJ - General Liability	No Level Selected	Level 1	The planning of the E-1950 (C-1950 CVH-D condensers) water wash job was to take one fan out of so	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2030493	9/16/2010	NIJ	NIJ - Product Quality (Int)	No Level Selected	Level 1	At 21:10 on September 16, 18 plant C-1820 became unstable. The outlet temperature dropped from 308F	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1591944	8/14/2009	LI	LI - Release	Level 1	Level 2	3rd stage H2 release at RLOP upon opening makeup valve to HNC.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1591944	8/14/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 2	3rd stage H2 release at RLOP upon opening makeup valve to HNC.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1562521	7/23/2009	LI	LI - First Aid	Level 1	Level 1	During steam out operation of 18 plant clean up, An operator took off his Glove to wipe his brow.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1841650	9/22/2009	LI	LI - Spill	Level 1	Level 1	During 18 plant clean up, and checking lines for cleanliness, a blender was opened and a small amount	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1775096	12/23/2009	LI	LI - Equipment Failure	Level 1	Level 2	When we try to give P-1831A to maintenance for repair we find out that the Discharge block valve was	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1803418	4/21/2010	LI	LI - Non-Industrial	Level 1	Level 1	This is for reporting purpose only. An operator reported to work with a discomfort in his right wai	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1563579	7/24/2009	LI	LI - First Aid	Level 1	Level 1	While in the process of opening a 2" block valve located under the reboller deck of E-1927AAB(valva	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1648558	9/26/2009	LI	LI - First Aid	Level 1	Level 1	RLOP Operator Arm Slinger: Operator was hooking up a double block & bleed tree at chest level to st	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1581262	8/4/2009	LI	LI - Non-Compliance Government Requirement	Level 1	Level 1	Operators, while walking a LOTO, noticed what appeared to be a radiation containment box that was la	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1581262	8/4/2009	LI	LI - Non-Compliance Company Policy	Level 1	Level 1	Operators, while walking a LOTO, noticed what appeared to be a radiation containment box that was la	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1960628	11/27/2009	LI	LI - Non-Industrial	Level 1	Level 2	On Oct 26, 2009 was informed of a possible injury that may have taken place on 09 Oct 2009. Internal	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2019900	9/28/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Employee reported feeling sick, nauseous, slight headache.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
2001615	8/11/2010	LI	LI - First Aid	Level 1	Level 1	Near the end of Tuesday's nightshift, Operator was in the process of emptying the recovered solvent I	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1824550	2/13/2010	LI	LI - Equipment Failure	Level 1	Level 1	Operator water flushed P1850 NH3 reflux pump for maintenance work on leaking seal flush tubing. Op	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1723275	11/18/2009	LI	LI - Equipment/Unit Trip	Level 2	Level 2	K-1900 is the feed gas compressor for the RLOP Gas Recovery Unit. This compressor takes off gas from	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1552703	7/16/2009	LI	LI - Equipment Damage	Level 1	Level 1	TOP INVESTIGATION-P-1845 ELECTRICAL ISSUES	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1933019	5/22/2010	LI	LI - Equipment Failure	Level 1	Level 1	Starting the week of 5/16/10 P1850A started amping out. We have been running without a spare for fo	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1830284	1/30/2010	LI	LI - Equipment Failure	Level 1	Level 1	E1940 fan fans B & C shutdown due to vibration numerous times. Yrs restarted them and they shutdown	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1604684	8/22/2009	LI	LI - Product Quality (Int)	Level 1	Level 1	The RLOP GRU offtested propane for i-C4 and n-C4 at the RAX from -8/21 17:00 to 8/23 01:00. During	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1641907	6/22/2009	LI	LI - First Aid	Level 1	Level 3a	RLOP operator was in the RLOP change room at his locker. As the operator was getting up from the ben	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1920862	5/7/2010	LI	LI - Permit Exceedance	Level 1	Level 1	FCC Totalizer tripped: Increased flow to the flare triggered the FCC totalizer. Investigation as	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1929798	5/17/2010	NIJ	NIJ - Lessons Learned	No Level Selected	Level 1	Near Loss - potential reduction of rates in RLOP due to loss of cooling.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1585537	8/10/2009	LI	LI - Release	Level 1	Level 1	Flare totalizer at South Isomax went off when K-1900 had to be shut down for tube oil leak on coupli	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1582329	7/23/2009	LI	LI - Permit Exceedance	Level 1	Level 1	Increased flow to North yard FGR due to Rlop cleanup of plants for shutdown.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1852327	2/25/2010	LI	LI - Non-Compliance Government Requirement	Level 1	Level 1	Loss: Bad order instrumentation; no life V entry; alarm disabled with no turnover / communication.	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1542998	7/8/2009	LI	LI - Contractor First Aid	Level 1	Level 2	Contract EE was moving the Scaffolding materials in the yard. Wind was blowing, and with the wind h	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1936792	8/3/2010	NIJ	NIJ - Product Mis-Delivery	No Level Selected	Level 1	Shipment document #10260852 from HUNTSMAN showed a delivery of 45,835 LB Diethanolamine (DEA) with	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1936792	8/3/2010	NIJ	NIJ - Paperwork Incomplete/Not Sent	No Level Selected	Level 1	Shipment document #10260852 from HUNTSMAN showed a delivery of 45,835 LB Diethanolamine (DEA) with	Richmond Refinery	Hydro Processing (Rich)	RLOP (Rich)			
1935889	5/19/2010	NIJ	NIJ - Non-Compliance - Air	No Level Selected								

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL1	LEVEL2	LEVEL3	LEVEL4	LEVEL5	LEVEL6
2009249	8/21/2010	LI	LI - Contractor First Aid	Level 1	Level 2	The man was using a board that was nearby to move some gravel around to level the wire pulling stand	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
1749518	12/4/2009	LI	LI - Permit Exceedance	Level 1	Level 1	Flaring Activity; Non-Environmental Incident.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
1659204	10/1/2009	LI	LI - Fire/Explosion	Level 1	Level 1	Two Chevron EE were working at K-1060 installing new handrails. As one was welding, the other employ	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
2010244	8/23/2010	LI	LI - Contractor First Aid	Level 1	Level 1	During a wire pulling operation on the south end of the 10.5 Plant in SISO, a Contra Costa Electrica	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
1868247	3/17/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Contractor Employee was working by the flare and reported a possible bug bite. CFD was notified and	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
7629	7/11/2009	LI	LI - Equipment Damage	Level 1	Level 2	K-1070 Flare Gas compressor trips out on high vibration. Initial inspection finds the crankcase has	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
14	7/13/2010	LI	LI - Equipment Failure	Level 1	Level 1	Last night the South Isomax AO-2 operator was in Flare gas recovery and noticed that P-1057A jacket	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
34	3/5/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	K-1060/70 Shutdown on High Level In V-1050 source of level unknown, OWS 2 received high level alarm	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	10.5 Plant Flare Gas Recovery		
2030496	3/19/2010	NLI	NLI - General Liability	No Level Selected	Level 1	A LOTO key was lost on the 2010 cluster S/D. When the operators opened the box to unlato 20 Plant,	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	20 Plant Hydrogen Recovery		
1863257	3/13/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Valve 504D, the repressurization valve for Bed 4, failed. It would not open during its cycle to pre	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	20 Plant Hydrogen Recovery		
1593299	8/13/2009	LI	LI - Business Process	Level 1	Level 1	Contractor employees complained of sore throat and said there was a lump in throat. CFD checked the	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	20 Plant Hydrogen Recovery		
1894282	4/11/2010	LI	LI - Permit Exceedance	Level 1	Level 1	Reinspection of UT scan area on a pressure vessel due to error in interpretation of job requirement	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	20 Plant Hydrogen Recovery		
1739459	11/30/2009	LI	LI - Equipment Failure	Level 1	Level 1	Hydro Flaring during 20 plant startup.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	20 Plant Hydrogen Recovery		
1892729	5/15/2010	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	TOP INVESTIGATION--505B PACKING FAILURE	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	20 Plant Hydrogen Recovery		
2035299	9/23/2010	NLI	NLI - Safety Systems and Relief Devices	No Level Selected	Level 2	H2S sensor 59A1202 was activated near V-2070. AO-4 Operator and Head operator observed liquid on pu	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	25 Plant Utilities		
2029528	9/19/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Multi-Lin system S/D K-2600 69112800 Trip High Motor winding alarm.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	25 Plant Utilities		
2002068	8/9/2010	LI	LI - Product Mis-Delivery	Level 1	Level 2	TOP INVESTIGATION--	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	25 Plant Utilities		
2002068	8/9/2010	LI	LI - Product Contamination (Int)	Level 1	Level 2	A Nalco chemical shipment of EC9254A was misdelivered by the bulk carrier into the Nalco Nexguard 22	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	25 Plant Utilities		
1552745	7/10/2009	NLI	NLI - Permit Exceedance	No Level Selected	Level 2	A Nalco chemical shipment of EC9254A was misdelivered by the bulk carrier into the Nalco Nexguard 22	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	25 Plant Utilities		
1786310	12/19/2009	NLI	NLI - Non Compliance - Water	No Level Selected	Level 1	8 plant exceeded the total allowed selenium to the slo reactor.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1569443	7/28/2009	NLI	NLI - Employee Injury	No Level Selected	Level 1	In the early morning of 12/10, steam was bosed to E-817 reboiler to C-810 H2S stripper column. Thi	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1856686	3/1/2010	NLI	NLI - Product Contamination (Int)	No Level Selected	Level 1	8 Plant Field Operator was requested by OWS#1 to Block in H2 to C-620 and lower the column pressure.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1987430	7/23/2010	NLI	NLI - Product Quality (Int)	No Level Selected	Level 1	Loss: High pH in sour water leading to elevated levels of Selenium in stripped sour water from 8 and	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1985475	7/23/2010	NLI	NLI - Non Compliance - Water	No Level Selected	Level 1	At approx 7:15 AM the feed composition in 8-plant changed, first dropping about 1% NH3 concentration	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1985475	7/23/2010	NLI	NLI - Product Quality (Int)	No Level Selected	Level 1	8 Plant WWT routed back to tankage. C-810 lost off indication between Tray 4 & 10, it rapidly decreas	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1931541	5/20/2010	LI	LI - MVC - Contractor	Level 1	Level 1	8 Plant WWT routed back to tankage. C-810 lost off indication between Tray 4 & 10, it rapidly decreas	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
2004605	8/15/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Contractor EE was parked his truck an F-559 next to a 1500 Pickup Truck. After picking up the perm	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1621410	9/8/2009	LI	LI - Product Quality (Int)	Level 1	Level 1	K-840-A lube oil alarm S/D activated and shut down the compressor resulting in routing overhead NH3	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1892442	4/7/2010	LI	LI - Product Quality (Int)	Level 1	Level 2	Isomax Propane went off test while switching Propane driers.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1979378	7/15/2010	LI	LI - Product Contamination (Int)	Level 1	Level 1	8 Plant SSW routed off-test due to high ammonia content at bioreactor. SSW was black in color and b	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1932315	3/19/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Summary:	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1798440	1/25/2010	LI	LI - Equipment Failure	Level 1	Level 1	Contract EE was being monitored (industrial hygiene personal air monitoring) for hexavalent chromium	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
2025789	9/12/2010	LI	LI - Product Quality (Int)	No Level Selected	No Level Selected	TOP INVESTIGATION-V-820 LEAK-An operator noticed an odor as he was walking through his plant at Sour	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1871606	3/19/2010	LI	LI - Contractor First Aid	Level 1	Level 1	8 PLANT ROUTED OFF TEST DUE TO UNSTABLE OPERATION IN C-820	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
2004356	8/13/2010	LI	LI - Product Quality (Int)	Level 1	Level 1	Employee was posing as a firehole watch for welding job on V-800 in 8 plant. Employee was statioe	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1575878	8/12/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	8-Plant C-810 column upset 6:30PM 8/13. DP rose, NH3 indication percentage swung by 1%. Column was	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	8 Plant Sour Water Plant		
1698806	10/30/2009	NLI	NLI - Operational Leak	No Level Selected	Level 2	Welder while setting up for a job and pulling leads in the general vicinity of V-910, felt some ini	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1761331	12/15/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	TOP Investigation: K940 DL LEAK TO SEWER	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1853620	3/4/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	Firewater supply line (10 inch) to 8,9 and 10 Plant has a 1 -2 inch hole in line, Located Overhead	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1890567	4/5/2010	NLI	NLI - Plant Run Out/Slow Down	No Level Selected	Level 1	The electric shop was performing PM on MK-960 in South Isomax. The covers were remove to access the	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1927921	5/14/2010	NLI	NLI - Non Compliance - Air	No Level Selected	Level 1	Console operator requested Booster compressor testing status and routing status of LSFO hydrogen in	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1883638	4/3/2010	LI	LI - Equipment Damage	Level 3a	Level 3a	Operator was blowing level down from V-930 and watching level indication when he got a call from O	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1976919	8/2/2009	LI	LI - Contractor First Aid	Level 1	Level 2	TapRoof - S/D of K-930, K-940, & K-960 H2 Boosters due to 1st Stage Cylinder Damage	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1892757	4/6/2010	LI	LI - Equipment Failure	Level 1	Level 1	While exiting a scaffold after installing a valve for V-9010, EE rolled his right ankle on the un-ev	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1677412	10/16/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	TOP Investigation: Leaking valve flanges (H2 Service) on K-920.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1564200	7/26/2009	LI	LI - Equipment Failure	Level 1	Level 1	While attempting start on K-920, had a no start (2 times). Created work request and during the elect	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1691813	10/27/2009	LI	LI - Days Away From Work Case	Level 2	Level 2	OAT around 14:30 operations noticed a loud knock coming from K-950. Further investigation revealed l	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1766670	12/18/2009	LI	LI - Equipment Failure	Level 1	Level 1	Operator was performing housekeeping after a job at T900 in South Isomax. He was placing locks back	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1647426	8/27/2009	LI	LI - Plant Run Out/Slow Down	Level 2	Level 2	Operator was making rounds when he noticed leaking at K-910 #5 Cylinder Third stage at a bleeder val	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1898758	4/13/2010	LI	LI - Equipment Failure	Level 1	Level 1	Broken isolation valve on the 2nd stage suction of K-960 lead to shutting down both K-950 and K-960	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
5972	11/13/2009	LI	LI - Equipment Failure	Level 1	Level 1	At approximately 8:30 pm last night the CFD responded to S. Isomax Booster Deck K-940 after a 1 1/2"	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
790	1/19/2010	LI	LI - Equipment/Unit Trip	Level 2	Level 2	TOP INVESTIGATION--Lost 9 PLANT BOOSTER COMPRESSORS	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
317	4/27/2010	LI	LI - Permit Exceedance	Level 1	Level 1	At 14:00 the south Isomax HO informed the STL of a jacket water leak in the temporary aluminum retu	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
5733	2/28/2010	LI	LI - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION--Lost 9 PLANT BOOSTER COMPRESSORS	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1575577	7/31/2009	LI	LI - Contractor First Aid	Level 1	Level 2	Flaring Incident from V-930.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1892471	4/6/2010	LI	LI - Equipment Failure	Level 1	Level 1	Operations was aware that K-930 #1 cyl had valves that were getting hot when unloaded and were leakin	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1982269	7/18/2010	LI	LI - Equipment Failure	Level 2	Level 2	Employee bent over staging barto put pick up a box of studs. Felt a pop on his right side of rib ca	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1537048	7/2/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	Steam hose leaked during use on the booster deck while Contractor EE was cleaning parts.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1853965	3/4/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	K-920 2nd stage #4 cyl. valves failed 9:58am 7/18. Was over 360 deg. per 6309204. Reversed Flow c	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1853965	3/4/2010	NLI	NLI - General Liability	No Level Selected	Level 1	When loading H2 compressor K-830, the 2nd stage PRD lifted due to the D/S discharge block being froz	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	9 Plant Booster Compressors		
1882374	3/25/2010	NLI	NLI - Incorrect Volume	No Level Selected	Level 1	Due to communication error the dollar plate on E-333A was taken off, therefore making the area an Ar	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1882374	3/25/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	Due to communication error the dollar plate on E-333A was taken off, therefore making the area an Ar	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1951800	6/14/2010	NLI	NLI - Incorrect Product	No Level Selected	Level 2	C-335 had much leftover packing due to incorrect drawing dimensions and overloaded sacks from the ma	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1631764	9/14/2009	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	C-335 had much leftover packing due to incorrect drawing dimensions and overloaded sacks from the ma	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1631764	9/14/2009	LI	LI - Business Interruption	Level 1	Level 1	TOP INVESTIGATION--ARSENIC INJECTION--On 6/14/2010 at 09:00am, an area operator was instructed to in	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1568840	3/8/2010	LI	LI - MVC - Contractor	Level 1	Level 1	Original estimate for crimping F-305B four leaking tubes was not met, causing an extended delay of H	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1856891	3/10/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Original estimate for crimping F-305B four leaking tubes was not met, causing an extended delay of H	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1890745	4/5/2010	LI	LI - Equipment Failure	Level 2	Level 2	MVC, Contractor vs Contractor. A forklift being driven by a Koch EE, backed up and made contact with	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1918302	4/21/2010	LI	LI - Non-Compliance Government Requirement	Level 1	Level 1	Employee was removing demister pad from inside V-320 in A train. Demister pad was damaged and stuck	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1862897	3/12/2010	LI	LI - Contractor First Aid	Level 1	Level 1	A-Train-F-305 C Coil tube leak.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1820803	2/10/2010	LI	LI - Equipment Failure	Level 3a	Level 3a	The following is copied from the 5-Why Investigation:	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1864569	3/14/2010	LI	LI - Equipment Damage	Level 1	Level 1	3 Contract EE's employees were chipping trays and comers inside of C-335 arsenic regulated area at 1	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1532827	9/14/2009	LI	LI - Non-Compliance Company Policy	Level 1	Level 1	On February 10, the South Isomax Head Operator discovered a pinhole Hydrogen leak on the 10-inch elb	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
2036605	9/25/2010	LI	LI - Equipment Failure	Level 1	Level 1	Spectrum Heat Treating were in the process of heat treating the pig tails on F-305, and during the P	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1851623	3/3/2010	LI	LI - MVC - Contractor	Level 1	Level 1	While ceramic fiber barrier tape was hung for the F-305B tube crimping work, several people were obs	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1777310	1/2/2010	LI	LI - Equipment Failure	Level 3a	Level 3a	South Isomax MEA pump P-332A unexpectedly shutdown resulting in a temporary loss of ~ 70mmscfd of hyd	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1974736	7/9/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Contract EE from one company, struck another Contract companies vehicle causing a minor dent near th	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1856726	3/8/2010	LI	LI - Contractor First Aid	Level 1	Level 1	At 09:10 A Train Operator was checking F-305 furnace and noticed that there was something not right.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1781899	1/6/2010	LI	LI - First Aid	Level 1	Level 2	K-300A Amps had started increasing at 20:30, OWS#2 console operator contacted the AO-3 area Operator	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1628233	9/13/2009	LI	LI - Equipment Failure	Level 3a	Level 3a	While climbing to the top of C-335, EE raised the ladder drop bar to exit onto the deck and released	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
1702633	11/2/2009	NLI	NLI - Product Unavailable	No Level Selected	Level 1	Sequence of events:	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen A Train		
2023668	9/8/2010	NLI	NLI - Incorrect Product	No Level Selected	Level 1	Ordered MEA when 6 inches left in the MEA supply tank. B Train lean MEA concentration was less than	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen B Train		
1926532	5/5/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	R-365 Feed Vent pressure control valve 62PV365 had failed in the open position. Trouble shooting had	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen B Train		
1876382	3/23/2010	LI	LI - Equipment Failure	Level 1	Level 1	Near less safety item, slipping hazard due to underground H2O leak south of B train furnace near st	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen B Train		
1975730	7/8/2010	LI	LI - Equipment Failure	Level 1	Level 1	B Tm K-361E Shutdown. At 23:59 his K361E forced induced fan shutdown. Several attempts to restart	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen B Train		
1958461	6/21/2010	LI	LI - Equipment/Unit Trip	Level 2	Level 2	New packing was installed in the field on P-361 and didn't have sufficient water leakage for lubrica	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen B Train		
1881535	3/28/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Boller Feed water pump TP-360A on Hydrogen B-train had a governor failure with B-train Mp-360 BFW p	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Hydrogen B Train		
1781108	1/6/201											

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL1	LEVEL2	LEVEL3	LEVEL4	LEVEL5	LEVEL6
1550545	7/15/2009	U	U - MVC - Contractor	Level 1	Level 1	EE was moving a Gentle Aerial man-lift in a lowered position when the boom came into contact with a	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Other (S.15a)		
1616612	9/17/2009	U	U - NOV - Air	Level 1	Level 1	Investigate smoking flare. No flaring indications were seen (high flare header pressure or flow to I	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Other (S.15a)		
1925873	5/14/2010	U	U - Non-Industrial	Level 1	Level 1	At the beginning of dayshift, Operator told STL that he had irritation to his eyes that started whil	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Other (S.15a)		
1578684	8/4/2009	U	U - Contractor First Aid	Level 1	Level 1	While working on a 10 ft. section of 3" conduit that had a 90 deg radius on one end, the worker was	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	Other (S.15a)		
1552325	7/15/2009	NLI	NLI - General Liability	No Level Selected	Level 1	While contract employee was doing his VOC inspection route that took him on top of V-141 in the SDA,	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
72458	2/22/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Contract Employee was drilling holes in the pipe rack for cable tray supports behind PH1 Power Cente	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
152	11/18/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	TOP INVESTIGATION-E120A GUARD ISSUES-On November 10th, 2009, during a Joint Jobsite Visit (LJISV),	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
185	12/15/2009	NLI	NLI - Operational Leak	No Level Selected	Level 1	While cleaning burners on F-120, mechanics had reinstalled a burner after cleaning and was performi	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
358	5/17/2010	U	U - Equipment Failure	Level 1	Level 1	Incident: Flaring from SISO with extinguishing of pilots on the flare.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1643885	7/8/2009	U	U - Equipment Failure	Level 1	Level 1	TOP INVESTIGATION-SDA/C-123 High Level, Loss of Anti-Foam Injection Feed Pulled to 120 Module	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1623543	9/8/2009	U	U - Equipment Failure	Level 1	Level 1	MP-128A lost suction, interruption in flow lead to a drop in DAO feed to TKC. Took several hours to	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1623541	9/8/2009	U	U - Business Loss	Level 1	Level 1	MP-128A lost suction, interruption in flow lead to a drop in DAO feed to TKC. Took several hours to	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1725210	11/19/2009	U	U - First Aid	Level 1	Level 1	TOP INVESTIGATION-EMPLOYEE SPRAYED WITH PRODUCT	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1563500	7/24/2009	U	U - Contractor First Aid	Level 1	Level 1	While cleaning up at the job site at the end of the shift, the mechanic encountered a particle in h	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1664430	10/6/2009	U	U - Fire/Explosion	Level 1	Level 1	While disassembling P-143A 13 stage pump at machine shop, liquid dripping from pump caught fire.	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1564070	7/25/2009	U	U - Equipment Failure	Level 1	Level 1	At 08:45 a Penline leak was discovered on E-130E inlet line down stream of the inlet block. Operatio	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1664700	10/6/2009	U	U - First Aid	Level 1	Level 1	First Degree Burn to Neck @ SDA. While conducting routine pump checks (P-104), Operator sustained b	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1940901	5/25/2010	U	U - Incorrect Volume	Level 1	Level 1	HIGH LIQUID LEVEL IN V-282 (Eleven Hours).	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1963848	6/25/2010	U	U - Equipment/Unit Trip	Level 1	Level 1	F-135 tripped on loss of flow. P-135 pump cavitated causing P-135A to ops on. Both pumps running an	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1609474	8/27/2009	U	U - Split	Level 2	Level 3a	TOP INVESTIGATION-Asphalt Leak from C-123/LT-123 at SDA Plant	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SDA Unit		
1578406	7/7/2009	U	U - Equipment Damage	Level 1	Level 2	K-300s' spillback cooler E-300 leaked natural gas into the cooling water side, indicating a tube-to-	Richmond Refinery	Hydro Processing (Rich)	South Isomax (Rich)	SNR Unit		
1900663	3/10/2010	NLI	NLI - Non-Compliance	No Level Selected	Level 2	Per the National Board Inspection Code RC-1130 pressure tests for repairs are to be witnessed by a	Richmond Refinery	Maintenance Facilities (Rich)	Boiler Shop			
2008226	8/19/2010	U	U - First Aid	Level 1	Level 1	TOP INVESTIGATION-PIPE SPOOL FELL ON FOOT-On Aug 19, 2010 mechanics had completed welds on an 8" dr	Richmond Refinery	Maintenance Facilities (Rich)	Boiler Shop			
1725644	11/19/2009	U	U - Non-Compliance Company Policy	Level 1	Level 1	TOP INVESTIGATION-UNAUTHORIZED PERSONNEL USING EQUIPMENT	Richmond Refinery	Maintenance Facilities (Rich)	Boiler Shop			
1837449	4/14/2010	U	U - First Aid	Level 1	Level 1	EE was walking past the door way between the Boiler shop & CTR. This area is usually breezy when the	Richmond Refinery	Maintenance Facilities (Rich)	Boiler Shop			
1786597	1/13/2010	U	U - First Aid	Level 1	Level 1	EE was lifting bleeder blinds to a cart after welding piping to them. He had done 6 of them when he	Richmond Refinery	Maintenance Facilities (Rich)	Boiler Shop			
1779081	12/23/2009	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	Radiographic film showing a 0.07" remaining thickness steam line connection to a washdown station in	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1779081	12/23/2009	NLI	NLI - Business Process	No Level Selected	Level 1	Radiographic film showing a 0.07" remaining thickness steam line connection to a washdown station in	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1930118	5/19/2010	U	U - MVC - Company	Level 1	Level 1	Collision with metal guard rail on Main st. outside the Central Maintenance Parking lot. Pulled the	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1991433	7/28/2010	NLI	NLI - Lessons Learned	No Level Selected	Level 1	A PMI machine with radiation sources was found missing at the Richmond facility. The machine was los	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1912432	4/4/2010	U	U - Notice of Violation	Level 1	Level 2	Missing Niton PMI analyzer (s/n 13354) having a sealed source containing Americium 241 at 30 millicu	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1912432	4/4/2010	U	U - Non-Compliance Government Requirement	Level 1	Level 2	Missing Niton PMI analyzer (s/n 13354) having a sealed source containing Americium 241 at 30 millicu	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1912432	4/4/2010	U	U - Employee Theft (Merchandise)	Level 1	Level 2	Missing Niton PMI analyzer (s/n 13354) having a sealed source containing Americium 241 at 30 millicu	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1912432	4/4/2010	U	U - Criminal Activity	Level 1	Level 2	Missing Niton PMI analyzer (s/n 13354) having a sealed source containing Americium 241 at 30 millicu	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1684348	10/14/2009	U	U - Non-Industrial	Level 1	Level 1	Employee had been removing Christmas decorations from overhead shelves in his Garage on Sunday, Octo	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1995636	7/7/2010	U	U - Contractor First Aid	Level 1	Level 1	A contractor Janitor was getting off shift and when walking thru parking lot to get to vehicle to le	Richmond Refinery	Maintenance Facilities (Rich)	Central Maintenance Building			
1833985	2/10/2010	NLI	NLI - Employee Injury	No Level Selected	Level 1	When scheduled for a manlift training, I was also suppose to get a safety harness from the Central T	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1656822	3/8/2010	U	U - MVC - Contractor	Level 1	Level 1	MVC, Contractor vs Contractor, Timec EE while backing out of a parking stall, made contact with a ve	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1851384	3/3/2010	U	U - MVC - Contractor	Level 1	Level 1	TOP INVESTIGATION-TRUCK HIT PEDESTRIAN-Early morning on March 3rd, a contractor parked their vehic	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1851384	3/3/2010	U	U - Contractor First Aid	Level 1	Level 1	TOP INVESTIGATION-TRUCK HIT PEDESTRIAN-Early morning on March 3rd, a contractor parked their vanic	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1929966	5/19/2010	U	U - First Aid	Level 1	Level 1	Toolkeeper HM was issuing filler metal when he noticed his right arm near his elbow was bleeding a l	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1830407	2/18/2010	U	U - First Aid	Level 1	Level 1	EE was picking up rental equipment. After attaching to truck, he was kicking the chalk block out fro	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1981278	7/19/2010	U	U - First Aid	Level 1	Level 1	While working at the tool repair bench, the mechanic dropped a hammer, when stepping back to pick up	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
2018266	8/31/2010	U	U - Medical w/o Lost Time	Level 2	Level 2	A Chevron employee heard high pressure air escaping from the regulator safety valve of a breathing a	Richmond Refinery	Maintenance Facilities (Rich)	Central Tool Room			
1749279	12/7/2009	U	U - First Aid	Level 1	Level 1	Employee reported to supervisor that he developed a small rash on forearm. Employee was sent to cli	Richmond Refinery	Maintenance Facilities (Rich)	Electrical Shop			
1817529	2/4/2010	U	U - Contractor First Aid	Level 1	Level 1	Employee was walking to exit gate 91 at the end of the workday, when he stepped in a hole and fell.	Richmond Refinery	Maintenance Facilities (Rich)	Gate 91 - Contractor Facilities			
1679220	10/19/2009	NLI	NLI - Equipment Damage	No Level Selected	Level 1	While working in the carpenter cabinet shop a carpenter was operating a hand held electric jig saw. T	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
1758210	12/14/2009	U	U - Equipment Damage	Level 1	Level 1	Sometime between 0830 and 0930 the SawStop table saw brake was activated. The GMG supervisor was not	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
1793703	1/20/2010	U	U - Equipment Damage	Level 1	Level 1	An employee was loading 2 each 1-5/8" X 7" pipes into the back of a pickup truck by hand. One of the	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
1946759	6/7/2010	U	U - First Aid	Level 1	Level 1	Employee picked up a small bag of insulation to put into the dumpster and experienced some discomfort	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
7331	9/30/2009	U	U - Contractor First Aid	Level 1	Level 1	EE was finished with lunch break and felt a burning sensation. Went to the paint shop eye wash stall	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
7350	4/14/2010	U	U - Non-Industrial	Level 1	Level 1	BRAND EMPLOYEE COMPLAINED OF A MILD SWELLING AND TIGHTNESS IN BOTH HANDS AFTER HANDLING	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
1846	8/17/2009	U	U - Criminal Activity	Level 1	Level 1	Brand Safety rep reported a color printer missing from their office sometime between 2:30pm 8/14/09	Richmond Refinery	Maintenance Facilities (Rich)	GMG Facility			
73139	1/20/2010	U	U - First Aid	Level 1	Level 2	Door struck EE right ankle. EE was entering the IAE shop. EE opened door and let go of door knob to	Richmond Refinery	Maintenance Facilities (Rich)	IAE Shop			
1829591	5/18/2010	U	U - Non-Compliance Government Requirement	Level 1	Level 1	On May 18 we discover the cal gases we where using to calibrate the Fuel Drums V-475 and V-701 H2S a	Richmond Refinery	Maintenance Facilities (Rich)	IAE Shop			
1817919	2/8/2010	U	U - First Aid	Level 1	Level 1	Electrician was sent to remove a tag on the control station for the overhead crane. The tag was loc	Richmond Refinery	Maintenance Facilities (Rich)	IAE Shop			
1912949	4/29/2010	U	U - First Aid	Level 1	Level 2	A Instrumentation Mechanic was performing a test of a Natural Gas Regulator in the Instrumentation	Richmond Refinery	Maintenance Facilities (Rich)	IAE Shop			
2017036	8/30/2010	U	U - First Aid	Level 1	Level 1	A electrician was inspecting a transformer skid in the electric shop, during the inspecting he opene	Richmond Refinery	Maintenance Facilities (Rich)	IAE Shop			
1607450	7/16/2009	U	U - Non-Industrial	Level 1	Level 1	Non Industrial - Informational, on the morning of July 16 2009, a Chevron employee called in to repor	Richmond Refinery	Maintenance Facilities (Rich)	IAE Shop			
1891291	3/15/2010	NLI	NLI - Paperwork Incorrect/Not Sent	No Level Selected	Level 1	Chevron ee's payroll entered into SAP incorrectly and/or late resulting in inaccurate pay checks.	Richmond Refinery	Maintenance Facilities (Rich)	IMPACT Building			
2019076	8/5/2010	U	U - Non-Industrial	Level 1	Level 1	While working at his office station, Contract EE became ill. EMT's were notified, and after evaluat	Richmond Refinery	Maintenance Facilities (Rich)	IMPACT Building			
1943693	6/2/2010	NLI	NLI - Contractor Injury	No Level Selected	Level 1	BRAND CARPENTERS ARE REPAIRING THE FLOOR IN THE MACHINE SHOP. THEY WERE AUDITED BY A	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1943693	6/2/2010	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	BRAND CARPENTERS ARE REPAIRING THE FLOOR IN THE MACHINE SHOP. THEY WERE AUDITED BY A	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1861686	3/17/2010	U	U - MVC - Company	Level 1	Level 1	RTD EE, while backing the crane truck into the Machine shop crane bay, made contact with the bay rol	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
2023170	9/7/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	While grinding a shaft on the shaft grinder, the wheel started to vibrate on the return of the 6th p	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
2013057	8/25/2010	NLI	NLI - Equipment Damage	No Level Selected	Level 1	Installation of P-466A delayed due to piston being damaged while machining.	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
2013057	8/25/2010	NLI	NLI - Business Interruption	No Level Selected	Level 1	Installation of P-466A delayed due to piston being damaged while machining.	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1724547	11/18/2009	U	U - MVC - Personal Use	Level 1	Level 1	Chevron EE driving to work hit some black ice and lost control of company passenger vehicle. Vehicle	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
2038228	9/27/2010	U	U - Fire/Explosion	Level 1	Level 1	TOP INVESTIGATION-DUMPSTER FIRE-At approximately noon on September 27th, 2010, a small smoldering	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1815109	2/4/2010	U	U - First Aid	Level 1	Level 1	At approximately 3:30 pm today a machinist was drilling a bleeder blind on the horizontal boring mac	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1553779	7/17/2009	U	U - First Aid	Level 1	Level 1	While turning a piece of material on lathe #17 in the machine shop a ball of metal chips struck out	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1790740	1/19/2010	U	U - First Aid	Level 1	Level 1	While removing piston rod from centers, the EE was supporting the rod with his right hand. When the	Richmond Refinery	Maintenance Facilities (Rich)	Machine Shop			
1973770	7/6/2010	U	U - First Aid	Level 1	Level 1	While EE was working on a VOC leak on the E-1434 PRD he went to his tool box to get a tool and while	Richmond Refinery	Maintenance Facilities (Rich)	North Yard Maintenance			
1862653	3/12/2010	U	U - Equipment Damage	Level 1	Level 1	This incident occurred in front of the P2S weld bay at the #1 parking lot used for the North Isomax Sh	Richmond Refinery	Maintenance Facilities (Rich)	North Yard Maintenance			
1806606	3/16/2010	U	U - Non-Industrial	Level 1	Level 1	While EE was driving a pick truck on Pole street near the Poly Plant going to the Alky Plant he fell	Richmond Refinery	Maintenance Facilities (Rich)	North Yard Maintenance			
1927440	2/16/2010	U	U - First Aid	Level 1	Level 2	Record keeping purpose only, no injury at this time - Hearing shift.	Richmond Refinery	Maintenance Facilities (Rich)	North Yard Maintenance			
1889676	3/23/2010	U	U - Security Incident	Level 1	Level 1	Two contract employees were searched because of a third party report of deadly weapon possession. Th	Richmond Refinery	Maintenance Facilities (Rich)	North Yard Maintenance			
1834187	2/18/2010	U	U - MVC - Contractor	Level 1	Level 2	Contract employee drove to Chevron north yard parking lot to pick up another employee. After pickin	Richmond Refinery	Maintenance Facilities (Rich)	North Yard Maintenance			
2028537	9/15/2010	U	U - Non-Industrial	Level 1	Level 1	Employee was volunteering at the Bay Area Rescue Mission as part of the Chevron Week of Caring team	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1947601	5/12/2010	U	U - Business Process	Level 1	Level 1	In early May 2010 Pass Control started a ticket (SR2010851831) with BRES IT Support reporting probl	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1861311	3/1/2010	U	U - Equipment Damage	Level 1	Level 1	E 933C rolled off of rollers at Hydrosblast Pad. Bundle had been placed on the rollers at the end of	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1854256	2/24/2010	U	U - First Aid	Level 1	Level 1	Record keeping purpose only, no injury at this time - Hearing shift	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1748874	11/17/2009	U	U - First Aid	Level 1	Level 2	Record keeping purpose only, no injury at this time - Hearing shift.	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1925206	5/9/2010	U	U - Abnormal Supply Occurrence	Level 1	Level 3a	Catalyst for the upcoming TKC catalyst change was inspected for quality. Sacks at the catalyst ware	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1856547	3/3/2010	U	U - Equipment Damage	Level 1	Level 1	TOP INVESTIGATION-EXCHANGER PARTS WERE SENT TO RECLAMATION-On March 3, 2010, parts (bundle,	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1943811	5/25/2010	U	U - Non-Industrial	Level 1	Level 1	Record keeping purpose only, no injury at this time - Hearing shift	Richmond Refinery	Maintenance Facilities (Rich)	Other (M&R)			
1980416	8/21/2010	U	U - Non-Industrial	Level 1	Level 1	Record keeping purpose only, no injury at this time - Hearing shift	Richmond Refinery	Maintenance Facilities (Rich)	Planning & Scheduling Facility			
1993872	8/6/2010	U	U - Business Interruption	Level 1	Level 1	On 8/6 the Weekend Maintenance Crew was scheduled to install P455A. The Mechanics found that the g	Richmond Refinery	Maintenance Facilities (Rich)	Planning & Scheduling Facility			
1648241	9/27/2009	U	U - First Aid	Level 1	Level 2	While doing the hot alignment on TP-713A in TKC-7 at North Isomax. The mechanic reached out to tight	Richmond Refinery	Maintenance Facilities (Rich)	RUC			
1763910	12/17/2009	U	U - General Liability	Level 1	Level 1	After unloading three new air conditioner units off of the truck, the forklift operator was attempt	Richmond Refinery	Maintenance Facilities (Rich)	RTD			
1849390	3/1/2010	U	U - MVC - Contractor	Level 1	Level 1	AT APPROXIMATELY 7:10 AM ON MONDAY, MAR. 1, A FIRST STUDENT CONTRACT DRIVER HAD A MINOR	Richmond Refinery	Maintenance Facilities (Rich)	RTD			
1731729	11/24/2009	U	U - First Aid	Level 1	Level 1	RTD Driver was throwing tie-down strap over lead on truck and felt a small pain in his elbow. Report	Richmond Refinery	Maintenance Facilities (Rich)	RTD			
1633614	9/16/2009	U	U - First Aid	Level 1	Level 1	Crane Operator was looking up trying to inspect crane for assembly. Stumbled and fell over a piece o	Richmond Refinery	Maintenance Facilities (Rich)	RTD			
1594876	8/17/2009	U	U - Non-Compliance Company Policy	Level 1	Level 1	RTD EE was observed by the refinery manager using a cell phone while driving.	Richmond Refinery	Maintenance Facilities (Rich)	RTD			
1740888												

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
1538012	8/14/2009	NLI	LI - Business Process	No Level Selected	Level 1	An emergency occurred in an operating plant requiring emergency response. At approximately 15:45 hr	Richmond Refinery	Plant Protection	Firehouse			
1550503	9/24/2009	NLI	LI - Business Process	No Level Selected	Level 1	Chevron Fire Department employed the external refinery alert system to summon volunteer firefighters	Richmond Refinery	Plant Protection	Firehouse			
1849711	2/23/2010	LI	LI - MVC - Company	Level 1	Level 1	While employees were cleaning a large industrial garage concrete floor, a small golf cart-type vehicle	Richmond Refinery	Plant Protection	Firehouse			
1770216	12/23/2009	NLI	LI - General Liability	No Level Selected	Level 1	The crew computer work stations desk set up has a pinch point concern between the highflow desk and	Richmond Refinery	Plant Protection	Firehouse			
1815273	2/2/2010	LI	LI - Equipment Failure	Level 1	Level 1	Monitor on emergency vehicle positioning gears are stripped, causing the monitor not to seat when ch	Richmond Refinery	Plant Protection	Firehouse			
1991263	6/7/2010	LI	LI - Equipment Damage	Level 1	Level 1	Shore power cord damaged; CanDriver was in the process of pulling the golf cart out of the engine b	Richmond Refinery	Plant Protection	Firehouse			
1832288	2/2/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	During a scheduled line feeder switch the firehouse lost power (NLI 1832210). The firehouse generat	Richmond Refinery	Plant Protection	Firehouse			
1858333	3/17/2010	LI	LI - Business Interruption	Level 1	Level 1	GFCL main breaker for the Firehouse opened when a breaker for an air conditioner condenser was close	Richmond Refinery	Plant Protection	Firehouse			
1600531	6/23/2009	LI	LI - Equipment Damage	Level 1	Level 2	The rear step on M-60B is damaged and gives away when stepped on...it could result in a personal in	Richmond Refinery	Plant Protection	Firehouse			
1844481	3/30/2010	LI	LI - Equipment Failure	Level 1	Level 1	All data on both Outlook machines in dispatch were erased by an unknown method.	Richmond Refinery	Plant Protection	Firehouse			
2013558	8/21/2010	LI	LI - Non-Industrial	Level 1	Level 1	EE with medical issue trans to Kaiser via AMR for follow up.	Richmond Refinery	Plant Protection	Firehouse			
1832210	2/2/2010	LI	LI - Business Interruption	Level 1	Level 1	Loss of electrical power to the Firehouse	Richmond Refinery	Plant Protection	Firehouse			
1930910	2/17/2010	LI	LI - Non-Industrial	Level 1	Level 1	Chevron employee medical illness. None work related	Richmond Refinery	Plant Protection	Firehouse			
1899778	4/18/2010	LI	LI - Non-Compliance Company Policy	Level 1	Level 1	While responding to the report of a car coming into the Rod & Gun area through 34 gate without stopp	Richmond Refinery	Plant Protection	Firehouse			
1533582	8/8/2009	LI	LI - Equipment Failure	Level 1	Level 1	Personnel was sprayed with raw sewage. Due to the safety sensitive nature of this failure tenant #8	Richmond Refinery	Plant Protection	Firehouse			
1933321	6/22/2010	LI	LI - First Aid	Level 1	Level 1	EE jumped when field mouse ran over their foot. EE had pain in lower back	Richmond Refinery	Plant Protection	Firehouse			
1875904	1/13/2009	NLI	LI - MVC - Contractor	No Level Selected	Level 1	Reliance was shoving cars through crossing at Main and Perotita. Reliance safety truck was blo	Richmond Refinery	Plant Protection	Other			
2006597	8/18/2010	LI	LI - Equipment Damage	Level 1	Level 1	Person(s) unknown cut perimeter fence to access refinery and contractor laydown yards. These person	Richmond Refinery	Plant Protection	Other			
2006597	8/18/2010	LI	LI - Criminal Activity	Level 1	Level 1	Person(s) unknown cut perimeter fence to access refinery and contractor laydown yards. These person	Richmond Refinery	Plant Protection	Other			
2006597	8/18/2010	LI	LI - Business Interruption	Level 1	Level 1	While attempting to download information from the voice data recording system, it was discovered tha	Richmond Refinery	Plant Protection	Other			
1950421	6/17/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Officer received 1" long laceration to right index finger due to using a chair that the padding had	Richmond Refinery	Plant Protection	Other			
1891287	3/20/2010	LI	LI - MVC - Contractor	Level 1	Level 1	While conducting a vehicle patrol @ 115 Lot Contract Security Officer fell asleep and sideswipe two	Richmond Refinery	Plant Protection	Other			
1551342	7/19/2009	LI	LI - First Aid	Level 1	Level 2	Record keeping purpose only - hearing shift	Richmond Refinery	Plant Protection	Other			
1806732	1/30/2010	LI	LI - MVC - Contractor	Level 1	Level 2	Security vehicle was entering 580 west on Castro Street when it came in contact with another vehicle	Richmond Refinery	Plant Protection	Other			
1904351	4/22/2010	LI	LI - Non-Industrial	Level 1	Level 1	While conducting interior structure fire fighting training at an off site location a fire brigade me	Richmond Refinery	Plant Protection	Other			
1881522	3/27/2010	LI	LI - Non-Industrial	Level 1	Level 1	SE notified me of non work related issue. EE stated he had been seen by emergency room doctor and wi	Richmond Refinery	Plant Protection	Other			
1898577	3/17/2010	LI	LI - Medical with Lost Time	Level 2	Level 2	Worker was working on elevated scaffolding near C-730 in North Isomax. When he approached a permit	Richmond Refinery	Plant Protection	Other			
1899600	3/3/2010	LI	LI - First Aid	Level 1	Level 1	Tom tendons result of live fire extinguisher training at Texas A&M. EE assigned to place in servit	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1631109	10/20/2009	LI	LI - Quality Management System	Level 2	Level 2	A Certificate of Analysis was issued for TANK 991 2009 05145 SPACAE-CA2 on 19/Oct/2009. The volume %	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1631109	10/20/2009	LI	LI - Product Quality (Int)	Level 2	Level 2	A Certificate of Analysis was issued for TANK 991 2009 05145 SPACAE-CA2 on 19/Oct/2009. The volume %	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1762399	12/15/2009	NLI	LI - Business Interruption	No Level Selected	Level 1	Demurrage cost was incurred at the RIC RLW because the Barge Onkes Bay was delayed from discharging	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1762399	12/15/2009	NLI	LI - Life Shipment	No Level Selected	Level 1	Demurrage cost was incurred at the RIC RLW because the Barge Onkes Bay was delayed from discharging	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1946746	5/3/2010	NLI	LI - Lessons Learned	No Level Selected	Level 2	TOP INVESTIGATION-CARB (California Air Resources Board) audit results performed on 19 May 2010, had	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
2019744	8/28/2010	LI	LI - Product Quality (Int)	No Level Selected	Level 2	The UNF completed an 8 day ZOR block into T-3165 on 8/28/10 night-shift. The tank was finalized for	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1825705	2/8/2010	LI	LI - Non-Compliance Company Policy	Level 1	Level 1	Inaccurate test information for a flare event on 02/08/2010 was recorded by QCQ OCO on the StarLins	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1779376	11/13/2009	LI	LI - Notice of Violation	Level 2	Level 2	QCQ Certificate of Analysis submitted for SUBCAE-D4 2009 05170 and SUBCAE-D4 2009 05171 had reported	Richmond Refinery	Quality Control (QCQ) (Rich)	Analytical Lab			
1924336	4/1/2010	NLI	LI - Paperwork Incomplete/Not Sent	No Level Selected	Level 1	Environmental report from a subcontract lab had a paperwork error. The report included analytes not	Richmond Refinery	Quality Control (QCQ) (Rich)	CEL Lab			
1892374	4/6/2010	LI	LI - NOV - Price Scanning	Level 1	Level 1	Employee states that he bent down to open the bottom draw of a cabinet, when he felt a sharp pain in	Richmond Refinery	Quality Control (QCQ) (Rich)	Other (QCQ)			
1892374	4/6/2010	LI	LI - First Aid	Level 1	Level 1	Employee states that he bent down to open the bottom draw of a cabinet, when he felt a sharp pain in	Richmond Refinery	Quality Control (QCQ) (Rich)	Other (QCQ)			
1861083	3/1/2010	LI	LI - First Aid	Level 1	Level 1	Blending and Shipping Area Operator splashed motor gasoline into his eye while drawing a golden fuel	Richmond Refinery	Quality Control (QCQ) (Rich)	Other (QCQ)			
1975832	7/8/2010	LI	LI - Spill	Level 1	Level 1	3 gallons of Gsoline products and by-products spilled onto the ground from a 55 gallon drum used as	Richmond Refinery	Quality Control (QCQ) (Rich)	Other (QCQ)			
1788488	1/15/2010	NLI	LI - Business Process	No Level Selected	Level 1	Operator was moving a quart sample of Diesel from one counter to another in room 1107. Physical lab	Richmond Refinery	Quality Control (QCQ) (Rich)	Physical Lab			
1923151	5/11/2010	LI	LI - Non-Industrial	Level 1	Level 1	At the start of dayshift, Operator reported and was observed to have discomfort in left leg and was	Richmond Refinery	Quality Control (QCQ) (Rich)	Physical Lab			
1810664	2/1/2010	NLI	LI - Air	No Level Selected	Level 1	While preparing to rack out K-16, mechanic inadvertently pushed the stop button for K-9 which shудо	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	BioReactor		
1937141	5/14/2010	LI	LI - Non-Compliance Government Requirement	Level 1	Level 1	On May 14th 2010, HES notified the Effluent OIA that the recording chart for the DWOP water temperat	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Deep Water Outfall		
2008418	8/17/2010	LI	LI - Business Process	Level 1	Level 1	The GAC filter vessels are located just upstream of the wastewater effluent to the bay. These carbo	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Deep Water Outfall		
1996799	8/3/2010	LI	LI - Equipment Damage	Level 1	Level 1	The driver is hauling re-usable soil at #1 Ox-Pond using end dump truck when the trailer tipped ove	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Land Farms		
2011781	8/24/2010	LI	LI - Operational Leak	Level 1	Level 1	Contractors working near abandoned oil-loading facility reported oil leaking from a line. Upon an	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Other (Environmental)		
1716698	11/10/2009	LI	LI - Community Inquiry	Level 2	Level 2	At approximately 15:00 hrs on 11/10/09, the Refinery received a call from the local Air District las	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Other (Environmental)		
1761782	12/12/2009	LI	LI - NOV - Water	Level 1	Level 1	On Saturday 12/12/09 storm water samples were taken from the Reclamation area as required by the NPD	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Ponds		
1831588	2/16/2010	LI	LI - NOV - Water	Level 2	Level 2	Non-compliance with NPDES Permit for bypassing (about 400 bbls of hydro-test water) of the effluent	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Ponds		
1543887	7/8/2009	LI	LI - Business Interruption	Level 1	Level 2	At approximately 15:00 hrs, a sanitary sewage odor was reported in and around the Admin building cau	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Sanitary Sewer System		
1540938	7/7/2009	NLI	LI - Spill	No Level Selected	Level 1	TOP INVESTIGATION-Spill from Vacuum Truck	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
1978269	7/8/2010	NLI	LI - Lessons Learned	No Level Selected	Level 1	TOP INVESTIGATION-Contractor electrician reported to work with concern of a very sore back on Wedne	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
1923782	5/11/2010	LI	LI - Contractor First Aid	Level 1	Level 1	TOP INVESTIGATION-Contractor electrician reported to work with concern of a very sore back on Wedne	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
1939196	3/16/2010	LI	LI - NOV - Air	Level 1	Level 1	On 3/16/10, P-202 lift pump at #2 separator failed a VOC inspection. The VOC result was above the 50	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
1606441	8/26/2009	LI	LI - Fire/Explosion	Level 1	Level 1	Portable diesel engine driven pumps are used as part of No. 13 separator GSD. One of these pumps was	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
2020248	9/11/2010	LI	LI - Community Inquiry	Level 1	Level 1	Internal odors in the south end of the Refinery were detected around 9:00 am. At the time of the odo	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
2034010	9/22/2010	LI	LI - First Aid	Level 1	Level 1	Shortly after completing an inspection of #2 Separator the employee felt irritation in his right eye.	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Separators		
1959422	6/22/2010	NLI	LI - Employee Injury	No Level Selected	Level 1	While using a hammer to tap a stud out of a 16" flange the left index finger got caught between the	Richmond Refinery	Utilities & Environmental (Rich)	Environmental (Rich)	Gumps		
1959467	8/12/2009	NLI	LI - Employee Injury	No Level Selected	Level 2	There have been several recent hot condensate burns to plant personnel in the Chevron refining syste	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1765332	11/27/2009	NLI	LI - Equipment Damage	No Level Selected	Level 1	At approximately 13:00 11/27/09 a widow at #1 Power Plant felt to the ground from about 20' so to w	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1764334	12/16/2009	NLI	LI - Non-Compliance Company Policy	No Level Selected	Level 2	While V-701B was down and isolated for confined space entry for inspection, modification work fer a	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1764334	12/16/2009	NLI	LI - Contractor Injury	No Level Selected	Level 2	While V-701B was down and isolated for confined space entry for inspection, modification work fer a	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1919619	5/3/2010	NLI	LI - Lessons Learned	No Level Selected	Level 1	Four contract employees and their company rep were securing an abatement job at #1 Power and were go	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
2003054	8/12/2010	NLI	LI - Lessons Learned	No Level Selected	Level 1	TOP INVESTIGATION-N2 HOSE RUPTURED-Approximately 08:30am, #1 Power Plant receives a call from the	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1588152	8/12/2009	LI	LI - Equipment/Unit Trip	Level 1	Level 1	K-3 Utilities Air compressor shutdown while performing Low Oil Pressure Alarm test.	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
2025152	8/8/2010	LI	LI - Fire/Explosion	Level 1	Level 1	At approximately 18:30 the Power Plant Boiler Operator (PPBO) smelled smoke while making rounds. Up	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1959122	6/22/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	At approximately 10:00 am #7 Boiler tripped off line. Boiler was immediately re-started with no imp	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1715667	11/11/2009	LI	LI - First Aid	Level 1	Level 1	On Wednesday, 11/11/09, employee performed a light routine of exercise that included some pushups.	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1566174	7/25/2009	LI	LI - Equipment Failure	Level 1	Level 1	#1 Boiler block valve to 800# header has a leaking bonnet.	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1821135	2/10/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	During normal Power Plant operation, it was requested to start up additional boilers due to the incr	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1821149	2/10/2010	LI	LI - Equipment Failure	Level 1	Level 2	Bonnet gasket leak on main block pressure seal valve on #4 boiler. This is a pressure sealed bonne	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1824822	2/14/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	On 14 Feb 10 the refinery steam system started to swing thru out the yard. As a result of refinery c	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1899514	4/17/2010	LI	LI - Fire/Explosion	Level 1	Level 1	At approximately 06:50 the Power Plant Boiler Operator (PPBO) smelled something burning and began to	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	#1 Power & Control House		
1548887	7/14/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	STG800 500# steam safety was lifted for approx. 5 min, then reset. The steam system was unstable due	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1677137	10/15/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	During the process of dislodging TG800 for scheduled PRD repair the faulty PRD lifted resulting in no	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1670613	10/12/2009	LI	LI - Safety Systems and Relief Devices	Level 1	Level 1	TG-800 500 lb safety lifted momentarily and reset. Ops responded immediately also monitored process	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1697138	10/30/2009	LI	LI - First Aid	Level 1	Level 1	The employee was trying to identify vibration source on P-2050A when he retracted his right hand bu	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1898467	4/15/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	Summary:	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1565057	7/24/2009	LI	LI - Plant Run Out/Slow Down	Level 1	Level 1	Co-Gen LPG vaporizer tripped on high pressure due to erratic levels and pressures. Upon investigati	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1572435	7/28/2009	LI	LI - Product Quality (Int)	Level 1	Level 1	Starting on approximately the weekend of July 24th 2009 the Cogen trains HRGG-1000, 2000 started exp	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen		
1929682	5/16/2010	NLI	LI - MVC - Contractor	No Level Selected	Level 1	While traveling south bound on petrole approaching a way stop near cogen ctr nsa,30 yards out slow	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen Control House		
1870790	3/18/2010	LI	LI - First Aid	Level 1	Level 1	Employee was reaching into kitchen drawer when his left hand came in contact with a knife which lace	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	CoGen Control House		
1795535	1/22/2010	NLI	LI - Contractor Injury	No Level Selected	Level 1	While offloading a pipe spool from a Geosack trailer at the P-3000 job site the load shifted and	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1792141	1/15/2010	LI	LI - Equipment/Unit Trip	Level 1	Level 1	TG-800 accidentally tripped off-line during electrical troubleshooting.	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1935463	8/10/2009	LI	LI - Business Process	Level 1	Level 1	During a PSSR on a new condensate line, it was discovered that there was no low point bleeder on the	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1654154	9/29/2009	LI	LI - Business Interruption	Level 1	Level 1	480 V #7-2 Feeder went to ground on Pole 629	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1641674	9/22/2009	LI	LI - Business Interruption/EVR-ISO	Level 1	Level 1	The #5 Castro Fresh Water line was isolated for approximately 30 hours as a pre-900 test for proces	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1875667	3/19/2010	LI	LI - First Aid	Level 1	Level 2	Record keeping purpose only, no injury at this time - Hearing shift.	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
2043782	9/30/2010	LI	LI - Spill	Level 1	Level 1	At 14:00 hours a hose leading from a circulation pump to Tank 312B failed, resulting in a leak of 2	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1879455	3/25/2010	LI	LI - Contractor First Aid	Level 1	Level 2a	Contractor EE was reshoring a clamp on a 500# steam leak off of octane at near P3 under bridge.	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Other (Utilities)		
1614621	8/6											

CONTROL	DATE OF	FORM	LOSS TYPE	ACTUAL LEVEL	POTENTIAL LEVEL	INCIDENT DESCRIPTION	LEVEL1	LEVEL2	LEVEL3	LEVEL4	LEVEL5	LEVEL6
1989974	7/20/2010	NLI	NLI - Paperwork Incorrect/Not Sent	No Level Selected	Level 1	TOP INVESTIGATION-UNLABELED BARRELS-While conducting a Contractor Safety weekly audit on an excava	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1989974	7/20/2010	NLI	NLI - Product Mis-Delivery	No Level Selected	Level 1	TOP INVESTIGATION-UNLABELED BARRELS-While conducting a Contractor Safety weekly audit on an excava	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1682532	10/21/2009	LI	LI - Spill	Level 1	Level 1	The Old Quarry Substation transformer # 79 bank was slated to be removed for demo. When preparing u	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1948958	6/2/2010	LI	LI - Product Quality (Ext)	Level 1	Level 1	A contractor while driving a 30 inch steel pipe pile with a bottom plate and tip in an overhead rest	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1948958	6/2/2010	LI	LI - Equipment Failure	Level 1	Level 1	A contractor while driving a 30 inch steel pipe pile with a bottom plate and tip in an overhead rest	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1983290	7/19/2010	LI	LI - Business Interruption	Level 2	Level 2	Loss of power to 480 V system at 2-A separator, 2.4 kV system at Panhex, and 480 V system at No. 4 R	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1790729	1/18/2010	LI	LI - Business Interruption	Level 1	Level 1	12.47 KV Power Outage Bus 1 at #1 Substation - # 1 Substation is double ended so Bus 2 never lost po	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1790735	1/18/2010	LI	LI - Business Interruption	Level 1	Level 1	Power Loss to 480 V Feeder 6-1 - pole line open wire slapped together and tripped 6-1 Breaker feedin	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1793676	1/20/2010	LI	LI - Business Interruption	Level 1	Level 1	Loss of Power to 12.47 KV Xylene Feeder due to high winds- pole line open wire slapped together and	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1985809	7/21/2009	LI	LI - Equipment Failure	Level 1	Level 1	Loss of electrical grid connection to MK-SO, FCC, Main Train Air Blower	Richmond Refinery	Utilities & Environmental (Rich)	Utilities (Rich)	Substations		
1807427	1/29/2010	LI	LI - MVC - Company	Level 1	Level 1	Operator struck yellow pole with left front fender of a Chevron pick-up truck when entering the wash	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Wash Down Area		
1933781	5/22/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Contractor reported Sunday morning from home to his supervisor that he back discomfort. The contract	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Wash Down Area		
1989483	7/28/2009	LI	LI - Contractor First Aid	Level 1	Level 1	In the morning as the vacuum truck driver was stepping down from his truck he missed the last step a	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Wash Down Area		
1557366	7/18/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	Contract employee while eating her lunch, a piece of chicken stucked on her throat causing difficult	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1580618	8/5/2009	NLI	NLI - Lessons Learned	No Level Selected	Level 1	While opening the top hatch of a 1rac tank in order to gauge the tank two contractors' H2S monitors	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1712601	11/12/2009	NLI	NLI - Contractor Injury	No Level Selected	Level 1	After unloading several bags of dry chemical processing additive from an elevated pallet to a stagin	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1793682	1/19/2010	NLI	NLI - General Liability	No Level Selected	Level 1	Near Loss	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1906197	4/24/2010	NLI	NLI - Non-Compliance Company Policy	No Level Selected	Level 1	My partner and I went to the EOD Hazardous Waste Annex to electrically disconnect some equipment for	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1660187	10/27/2009	LI	LI - Spill	Level 1	Level 1	During the loading of diesel to a phase separator bin at the ramps -11 gallon of diesel leaked out of	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
2032012	9/1/2010	LI	LI - Product Contamination (Int)	Level 1	Level 1	LL Poly originating from V-091 that was being transferred from a stainless steel temporary storage	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
2017717	8/25/2010	LI	LI - MVC - Contractor	Level 1	Level 1	Contractor was backing a tank into a berm at the north yard chem pad when he scrapped one of the yrf	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1871744	3/19/2010	LI	LI - Equipment Damage	Level 1	Level 2	Bin damaged, during waste transfer. Sturgeon bin # 25527 damaged during transfer of waste from the	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1818015	3/8/2010	LI	LI - Non-Industrial	Level 1	Level 1	A contractor was unloading empty drums out of the back of a semi truck when he stated he heard a 'pe	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1849890	3/2/2010	LI	LI - Contractor First Aid	Level 1	Level 1	Contractor employee slipped and fell, injuring leg. At approximately 4:20pm, while walking along Cha	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1895040	4/12/2010	LI	LI - First Aid	Level 1	Level 1	The electrician lowered his tailgate of his truck to remove a wood pallet, when he lowered the tailg	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1826917	2/16/2010	LI	LI - Equipment Failure	Level 1	Level 1	Approximately 5 gallons of sulfuric caustic leaked from the front flange while filling the 1rac tank	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1847904	3/1/2010	LI	LI - Contractor First Aid	Level 1	Level 2	EE was moving a solid from the Rain for Rent lay down yard. While the EE was doing a walk around he n	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1821142	2/10/2010	LI	LI - Spill	Level 1	Level 1	INITIAL REPORT- Less than 1 barrel of diesel/water mixture spilled to ground. At 3:45pm on a Wednes	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1577639	8/3/2009	LI	LI - Spill	Level 1	Level 2	TOP INVESTIGATION-TANK SPILL FROM MANWAY COVER AT HAZARDOUS WASTE TREATMENT YARD-The	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		
1543818	7/8/2009	LI	LI - Business Process	Level 1	Level 1	Contract employee put Non-Haz Industrial debris into a HWY Bin containing contaminated soil.	Richmond Refinery	Utilities & Environmental (Rich)	Haz Waste Section	Other		